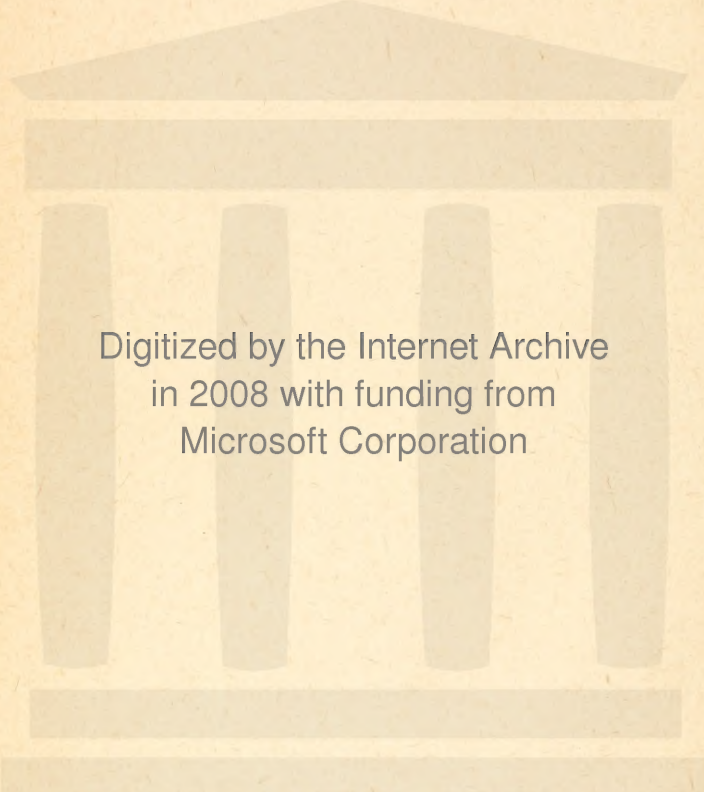


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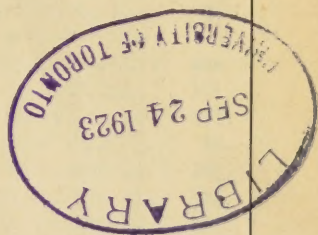
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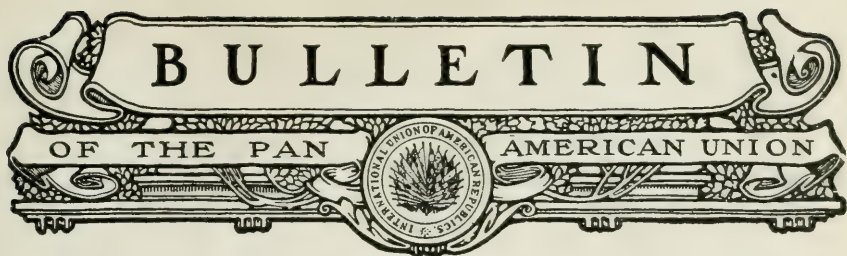




Photograph by George F. Hirschman.

GENERAL PEDRO NEL OSPINA, PRESIDENT ELECT OF COLOMBIA, AND DISTINGUISHED GUESTS AT THE LUNCHEON GIVEN IN HIS HONOR IN THE PAN AMERICAN UNION BY THE DIRECTOR GENERAL, DR. L. S. ROWE, MAY 5, 1922.

First row, left to right: Dr. Antonio López Gutiérrez, Minister of Honduras; Dr. Carlos Alzamora, Delegate of Chile to the Chilean-Panamerican Conference; Hon. Andrew W. Mellon, Secretary of the Treasury; Dr. Carlos Manuel de Céspedes, Minister of Cuba; Gen. Pedro Nel Ospina, President Elect of Colombia; Hon. Charles Evans Hughes, Secretary of State; Dr. Beltrán Mathieu, Ambassador of Chile; Dr. Augusto Cochrane de Alencar, Ambassador of Brazil; Dr. Santos A. Domínguez, Minister of Venezuela; Sr. Don Carlos Uribe, Jr., Charge d'Affaires of Colombia; Dr. L. S. Rowe, Director General of the Pan American Union. Second row, left to right: Mr. Lehigh Harrison, Jr., Assistant Secretary of State; Hon. James John Davis, Secretary of Labor; Dr. Octavio Beceite, Minister of Costa Rica; Dr. Emiliano Chamorro, Minister of Nicaragua; Dr. Emilio C. Lombardi, Minister of the Dominican Republic; Dr. Alfredo González Prada, Charge d'Affaires of Peru; Hon. Henry Cantwell Wallace, Secretary of Agriculture; Hon. Edwin D. Pratt, Secretary of the Navy; Hon. John Jacob Rogers, Chairman of the Committee on Foreign Affairs, House of Representatives; Gen. John J. Pershing, Chief of Staff, War Department; Dr. Tomás A. Le Breton, Ambassador of Argentina; Dr. Adolfo Ballivián, Minister of Bolivia; Dr. Francisco J. Yanes, Assistant Director, Pan American Union; Dr. Jacobo Varela, Minister of Uruguay; Dr. Alejandro Alvarez, Counselor of the Chilean delegation to the Chilean-Panamerican Conference; Dr. Alberto Gutiérrez, Minister of Bolivia in London; Sr. Don Francisco Sánchez Lafour, Charge d'Affaires of Guatemala (now Minister). Third row, left to right: Dr. Hubert Work, Postmaster General; Mr. William Phillips, Undersecretary of State; Sr. Don José M. Coronado, Secretary of the Legation of Colombia; and Mr. Robert Woods Bliss, Third Assistant Secretary of State.



VOL. LV

JULY, 1922

No. 1

THE CHILEAN-PERUVIAN CONFERENCE: INAUGU- RAL SESSION ∴ ∴ ∴

ONCE MORE the hospitable doors of the Pan American Union have swung wide, and once again within its walls, already historic in the annals of international conciliation, is being enacted "a needed and inspiring example of the practice of peace." This time it is two of her own family of nations, two of the most highly dowered members of that sisterhood of nations which, weary of estrangement and keenly desirous of composing their differences in keeping with the high and noble traditions which are their joint and best inheritance, have crossed the threshold of their Pan American home to renew within its symbolic walls and sympathetic atmosphere those intimately cordial ties of friendship which were loosened and lost so many years ago.

Never was time more auspicious than the present for such a meeting. Called by President Harding at a moment when the whole world is clamoring for peace and friendship, when the echoes of the great world Conference on the Limitation of Armament still vibrate in the awakened consciousness of the nations, it is small wonder that the Governments of Chile and Peru made such prompt and generous response, that the leading men of these nations have applauded both the invitation and the response thereto, and that the nations of Pan America, as a unit, bid the appointed delegates ¹ Godspeed and a happy issue from their deliberations.

The Chilean delegates, Sr. don Carlos Aldunate and Sr. don Luis Izquierdo, together with their counsellor, Sr. don Alejandro Álvarez,

¹ See p. —.

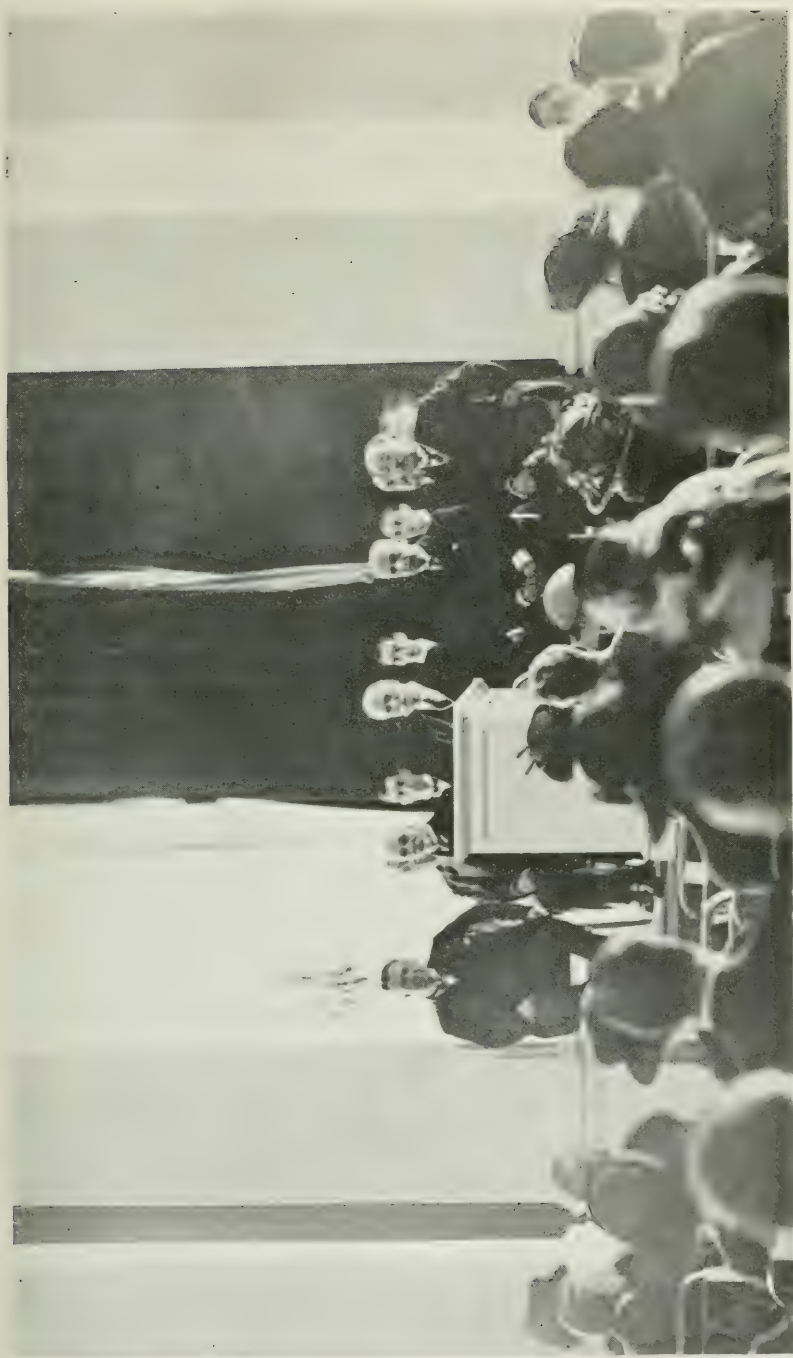
and the secretaries, Sres. Feliú and Silva, who were the first to reach Washington, were soon followed by the Peruvian commissioners, Sr. don Melitón Porras and Sr. don Hernán Velarde, together with their counsellor, Sr. don Solón Polo, and their secretaries, Sres. Álvarez de Buenavista and Gonzalo de Aramburu.

As a fitting and gracious prelude to the conference itself, the members of these special diplomatic missions were invited by President and Mrs. Harding to a luncheon in their honor at the White House, on May 11, to which were invited also their excellencies, the ambassadors of Chile and Peru, Senator Henry Cabot Lodge, chairman of the Committee on Foreign Relations, Representative John Jacob Rodgers, member of the Committee on Foreign Affairs, Mr. Phillips, the Undersecretary of State, and Dr. L. S. Rowe, the Director General of the Pan American Union.

The following evening the delegates were officially welcomed by the United States at a brilliant reception given in their honor at the Pan American Union by the Secretary of State and Mrs. Hughes. More than a thousand guests, representing the social, diplomatic, and official groups of the Capital, paid their respects to the receiving line, headed by Secretary and Mrs. Hughes, assisted by Dr. and Mme. Porras, Drs. Izquierdo, Aldunate, and Velarde. Seldom, if ever, has a more distinguished assemblage graced the beautiful Hall of the Americas, and seldom indeed have the stars looked down on a more lovely and artistic setting than that afforded by the Aztec gardens in the rear, which were specially illuminated in honor of the occasion.

Four days later, May 15, the inaugural session of the conference, which took place in the Hall of the Americas before another distinguished gathering of notables in which were included the principal Government officials of the United States and the diplomatic representatives of most of the nations of the world, was formally opened a few minutes after noon by Charles Evans Hughes, the Secretary of State of the United States, as spokesman for President Harding. The complete text of his speech is as follows:

EXCELLENCIES: It is with the utmost gratification that I extend to you a cordial welcome to this capital and felicitate you upon this meeting for the purpose of ending a long-standing controversy. You will find here, I trust, an atmosphere congenial to your endeavors, and you can not fail to be impressed with the deep interest that we feel in all that pertains to the welfare of Chile and Peru and of all our sister Republics in Latin America. This meeting place, devoted to Pan American friendship, has the most inspiring memories. What has been accomplished within these walls must remain a lasting assurance that the most difficult problems can be solved when nations take counsel of the interests of peace and seek with united purpose a better understanding. Here we have witnessed the astounding spectacle of great naval powers voluntarily agreeing to scrap a large proportion of their capital ships and to end the most serious competition in naval armament, thus relieving their peoples of an intolerable burden and affording convincing proof of the absence of policies of aggression.



Photographed by George F. Hirschman.

INAUGURATION OF THE CHILEAN-PERUVIAN CONFERENCE IN THE "HALL OF THE AMERICAS," PAN AMERICAN UNION BUILDING, WASHINGTON, D. C., MAY 15, 1922.

On the platform, in the first row, left to right: Sr. Luis Izquierdo and Sr. Carlos Aldunate Solar, Chilean delegates; Hon. Charles Evans Hughes, Secretary of State of the United States; Sr. Melitón Porras and Sr. Hernán Velarde, Peruvian delegates. Second row: Sr. Alejandro Alvarez, Chilean Counselor; and Sr. Solón Polo, Peruvian Counselor. In the rear, left to right: Sr. Jorge Silva and Sr. Luis Feliú Hurtado, Secretaries of the Chilean delegation; Sr. Gonzalo N. de Aramburi and Sr. Javier A. de Buonavista, Secretaries of the Peruvian delegation.

Here, nations especially interested in the Far East have been able to dispel apprehension and distrust and find through their common endeavors a basis for amity and cooperation.

Surely this is an auspicious time to heal old wounds and to end whatever differences may exist in Latin America, and there could be no more agreeable harbinger of a better day and of a lasting peace upon this hemisphere than the convening of this conference of the representatives of the Republics of Chile and Peru. I congratulate you upon the high purpose and the noble and conciliatory spirit which have animated both Governments in the approach to this meeting and upon the earnest desire which both have manifested that through this friendly intercourse a mutually satisfactory settlement may be found. Permit me to express not only the hope but the firm conviction that your zealous and well-directed endeavors dominated by this friendly spirit will be crowned with complete success.

It may be appropriate for me to repeat the terms of the invitation extended by the Government of the United States to the Governments of Chile and Peru, the acceptance of which has led to this conference. I had the honor, on behalf of my Government, of addressing both Governments as follows:

The Government of the United States, through the courtesy of the ambassadors of Chile and Peru in Washington, has been kept informed of the progress of the recent negotiations carried on directly by telegraph between the Governments of Chile and Peru, looking toward a settlement of the long-standing controversy with respect to the unfulfilled provisions of the Treaty of Ancon. It has noted with the greatest pleasure and satisfaction the lofty spirit of conciliation which has animated the two Governments, and that as a result of these direct exchanges of views, the idea of arbitration of the pending difficulties is acceptable in principle to both. It has also taken note of the suggestion that representatives of the two Governments be named to meet in Washington with a view to finding the means of settling the difficulties which have divided the two countries.

Desiring in the interests of American peace and concord to assist, in a manner agreeable to both Governments concerned, in finding a way to end this long-standing controversy, the President of the United States would be pleased to welcome in Washington the representatives which the Governments of Chile and Peru may see fit to appoint, to the end that such representatives may settle, if happily it may be, the existing difficulties, or may arrange for the settlement of them by arbitration.

You have here the privilege and responsibility of exceptional opportunity. Perhaps no event has ever been contemplated by the American Republics with deeper interest and more fervent hope. The only relief for a troubled world is in resort to the processes of reason in lieu of those of force. Direct and candid interchanges, a sincere desire to make an amicable adjustment, the promotion of mutual understanding, and the determination to avoid unnecessary points of difference in order that attention may be centered upon what is fair and practicable—these are of the essence of the processes of reason. The pathway to an enduring concord and to the prosperity of a mutual helpfulness lies open before you. What is done here will have a lasting effect upon the security and happiness of all peoples, inasmuch as the success of this conference through your agreement will not only demonstrate your wisdom and lofty conceptions of duty, but will furnish the world with a needed and inspiring example of the practice of peace.

The Government of the United States gives you welcome and Godspeed.

At the conclusion of Secretary Hughes's speech, which was received with vigorous and prolonged applause, Sr. Luis Izquierdo, who responded on behalf of the Chilean delegation, expressed in clear and lucid English his cordial appreciation of Secretary Hughes's "able

and eloquent words," the gratitude of his Government for the good offices of the United States, the entire willingness of the former to accept a fair and just settlement, and the hope of his delegation that the work of the conference would be a success. The full text of Dr. Izquierdo's speech follows:

MR. SECRETARY: On behalf of the Chilean delegation I have the honor to express to you, Mr. Secretary, our cordial appreciation of the able and eloquent words which we have just heard. At the same time I desire to give utterance, with special emphasis, to the warm gratitude of the Government of Chile for the invitation tendered to Chile and Peru by His Excellency President Harding to meet at Washington, at this opportune moment, in the conference which to-day is holding its opening session.

The Government of Chile, Mr. Secretary, lost no time in complying with the generous inspiration of your Government, and I may add that it did this inspired by a high spirit of international conciliation, which I hope and confidently expect will be reflected in our deliberations.

The long-pending question which divides Peru and Chile and which has its roots in the circumstance that the two Governments have failed to agree, up to the present time, on the manner of carrying out some unfulfilled provisions of the treaty of Ancon, is the one question which unfavorably affects their political and social intercourse as well as their economic and commercial relations, and which prevents these relations from attaining that fuller development which, under the beneficent influence of peace, the future holds in store for them.

To put an end to this pending question, through a solution in harmony with the precise and loyal fulfillment of the treaty of Ancon, is the aim that the President of Chile and his government have had in view: First, when they initiated a direct telegraphic discussion with the Government of Peru toward the close of the last year, and, second, when they sent us here with instructions to endeavor to eliminate the difficulties standing in the way of the fulfillment of the treaty signed by the two Republics.

Convinced that our distinguished colleagues, the representatives of Peru, are inspired by the same sentiments that animate us, we entertain the hope—which I am tempted to say almost reaches the level of a certainty—that the present conference, due to the initiative of the United States, will reestablish cordial relations between the two sister nations united by reason of common racial origin, by geographical situation, by community of economic interests, and by the glorious traditions of their early history.

The Government of the United States, Mr. Secretary, will thus have rendered, through its high moral influence, a new and great service to the movement for an amicable settlement of international disputes; to the furtherance of the spirit of Pan Americanism; and to the cause of humanity, justice, and peace.

After the energetic applause which greeted Dr. Izquierdo's address had subsided, Dr. Porras arose and in convincing English, put his Government, his delegation and himself on record as ready "to put forward every endeavor to secure the fulfillment of the lofty aims" which animated Secretary Hughes' address of welcome. The exact text of the address of Sr. Porras is as follows:

YOUR EXCELLENCY: It is a signal honor, as well as a source of sincere gratification to the Peruvian delegation to be allowed, on this momentous occasion, to express its absolute concurrence with the motives which have impelled the President of the United States to propose and bring about the conference, which is to solve the old-standing South American conflict of the Pacific.

The Peruvian delegation duly appreciates and admires the achievement secured by American initiative, and desires, once again, in the name of the Peruvian Nation, to pay its tribute of gratitude for the generous hospitality and the opportunity which this solemn invitation furnishes for the peaceful, speedy and permanent settlement of this grave conflict.

The delegation is specially grateful for the significant and important statements which, in such high-minded terms, have been made by the enlightened statesman who represents the Government of this great Nation and, in acquiescing therein, the delegation signifies its readiness to put forward every endeavor to secure the fulfillment of these lofty aims.

Toward that end no effort will be spared that the beacon of truth may prevail to light up and dissipate all shadows from the road which leads to the goal of a peaceful and harmonious solution; to an accord exempt from mistrust or suspicion, firm and enduring with which we, likewise, are in complete sympathy. That such harmony is susceptible of achievement, we firmly believe, for we have come here in obedience to such a high ideal of Justice, that it must necessarily inspire our labors, evolved, as these will be, in a pure and untrammelled atmosphere where the steadfast determination to be guided and to abide by it will be ever present with irresistible force.

International history records no precedent of a case as this; not on account of the territory involved in the controversy, nor of the world-wide importance of the interested parties to it, but owing to the very nature of the dispute and its antecedents, to the conflicting principles which have arisen, and above all on account of the manner in which these are to be adjusted. It possesses, for these reasons, the most far-reaching importance, to such an extent that it is no exaggeration to assert that a fortunate solution of the problem would be interpreted as the definite and final triumph of international peace and justice in America; while failure would irrevocably signify the shipwreck of all fraternal aspirations on the South American Continent, the indefinite continuance of a reign of disorder and unrest, and the inevitable dark and gloomy outlook for all its component nationalities.

This great Republic has, during the last few years, proffered such high hopes for the welfare of humanity, and it has fallen to her lot to unravel such serious and delicate problems, wherein her influence has ever been exerted in a manner both salutary and enlightened in all world events, that there can be no doubt as to the efficacy of her interest in the present problem which, simple in itself, possesses no unsurmountable difficulties or complications.

Should such a fortunate solution be achieved, it will create the happiest precedent in the international history of modern times and prove an inestimable blessing bestowed on the future of South America.

The Peruvian delegation, therefore, pays a sincere and enthusiastic tribute of admiration and gratitude to the powerful and noble American Nation, and hopes and trusts that the result of its initiative will be proportionate to the high ideal which gave it birth.

In closing the session, Secretary Hughes expressed himself as follows:

The eloquent statements to which we have listened afford new ground for the conviction that this conference will result in a just and mutually satisfactory settlement of this controversy, and we now leave to the representatives of the Republics of Chile and Peru the continuance of this conference in such manner as they may decide to be advisable and convenient, conscious as they must be that their proceedings will be watched with the deep interest and best wishes of the peoples of all nations.

To such eloquent and convincing words of high purpose and cordial good will the PAN AMERICAN BULLETIN can add nothing but the sincere and earnest expression of its hope that, in the words of the Director General¹ on another occasion:

“We shall emerge from this Conference with a new vision of what international cooperation means. America's contribution to the maintenance of an enduring peace will depend, to a greater degree than we are accustomed to think * * * upon the adjustment of the relations between the republics of this continent. The international policy of the American Continent must not only be dominated by the utmost good faith, but must set new standards of international helpfulness.”

¹ Address at the National Conference on Foreign Relations of the United States, under the auspices of the Academy of Political Science, Long Beach, N. Y., May 30, 1917.





Photographed by George F. Hirschman

INAUGURATION OF THE CHILEAN-PERUVIAN CONFERENCE, PAN AMERICAN UNION.

First row, left to right: Sr. Alejandro Alvarez (Chile) Counsellor; Sr. Luis Izquierdo (Chile) delegate; Sr. Carlos Aldunate Solar (Chile) delegate; Charles Evans Hughes, Secretary of State; Sr. Melitón Porras (Peru) delegate; Sr. Hernán Valente (Peru) delegate; Sr. Salom Polo (Peru) Counsellor. Second row, left to right: Sr. Jorge Silva Yeotham (Chile), Sr. Luis Felio Hurtado (Chile), Sr. Javier Buenavista (Peru), Sr. Gonzalo N. de Alambura (Peru), secretaries of the delegations.

BRIEF BIOGRAPHICAL NOTES.

DR. CARLOS ALDUNATE SOLAR is an eminent jurist and one of the most prominent members of the Chilean bar; is also a statesman of distinction and president of the Conservative Party. He has occupied many high and important positions, among which may be mentioned: Professor of civil law and legal practice in the University of Chile; counsel for many banking and other large corporations, and for the charity board; founder of and counsel for many important agricultural and industrial enterprises; deputy, senator, and president of the Senate; author of a large number of legal works, various legislative bills concerning agricultural, mining, and social questions, and a complete code on irrigation works and canals.

LUIS IZQUIERDO has won enviable distinction as a statesman, jurist, and diplomat. He studied in the National University and took an active part in the War of the Pacific. He has at various times been secretary of the legation of Chile in London, consul general in Japan, a member of Congress, Minister of Foreign Affairs, and Minister of the Interior. As a prominent member of the Liberal Party, he was noted for his investigations and speeches relating to economic, international, and administrative affairs. In 1920 he was a delegate to the Pan American Financial Congress in Washington and is at present Minister Plenipotentiary of Chile in Argentina.

DR. ÁLEJANDRO ALVAREZ is also a noted jurist and internationalist. For many years the legal adviser of the Ministry of Foreign Affairs and professor of international law in the University of Chile, he has nevertheless found time to become the author of many textbooks and important treatises on international law and relations. He has been successively Secretary General of the American Institute of International Law; member of the Hague Permanent Court of Arbitration; delegate to various international conferences and commissions; and a member of numerous legal, scientific, and university organizations. Señor Álvarez is probably the most distinguished Latin American protagonist of American international law.

DR. MELITÓN F. PORRAS has won distinction as lawyer, jurist, diplomat, journalist, and statesman. In his early youth he took part in the War of the Pacific to win, later his doctorate in letters, political science, and jurisprudence in the University of Lima. Among the honorable positions filled by Dr. Porras may be mentioned: Professor in the School of Liberal Arts; publisher of "El Comercio" of Lima; minister plenipotentiary of Peru in Chile, Ecuador, Bolivia, Italy, and ambassador extraordinary in Venezuela; several times Minister of Foreign Affairs; and president of the Council of Ministers. The legislative and civic achievements of Dr. Porras have been of signal and far reaching importance for his country.

SEÑOR HERNÁN VELARDE studied in the Naval School and later in the University of Lima. He also took part in the War of the Pacific, to become later a lawyer, diplomat, and author of distinction. Señor Velarde has served as Secretary of the Legation of Peru in Brazil and minister plenipotentiary of Peru in Colombia and Brazil. He has filled with great prestige important positions in the Government and in the public administration of Peru. He is now minister plenipotentiary of Peru in Argentina.

DR. SOLÓN POLO, eminent lawyer, diplomat, and public official, who holds the degree of Doctor of Laws from the University of Lima and who was formerly Chief of the Diplomatic Bureau and Counsellor of the Ministry of Foreign Affairs, Minister Plenipotentiary of Peru in Bolivia and twice Minister of Foreign Affairs, is a recognized authority on international and legal questions in both Europe and America. He has also done some noted work in journalism and is the author of various books and treatises on national and international law, having been honored with membership in many scientific and legal societies, both Peruvian and foreign.

A SIGNIFICANT PAN AMERICAN CONFERENCE

THE National League of Women Voters of the United States is to be congratulated in no measured terms on the successful consummation of the Conference of Pan American Women which took place recently in Baltimore in conjunction with the Annual Convention of the League in that city.

In the first place, this conference was Pan American not in name only, but in fact, the women of practically every country in this Western Hemisphere participating therein, either directly through official delegates¹ appointed by their respective Governments or through delegates chosen by the principal organizations of women, many of which are national in scope and character, or, as in the case of Mexico, by both classes of delegates, either separately or in combination. It may be added that the response to the League's invitation, which, by the courtesy of Secretary Hughes, was dispatched through the channels of the State Department, was most gratifyingly prompt and enthusiastic. Moreover, this conference was to an unusual degree truly representative of the women of the Americas. No one who attended the conference or who, outside of its sessions, came into contact with the visiting delegates, can have the slightest doubt as to the truth of this statement. Practically every walk in life, every grade in society, every shade of political belief, from extreme conservatism through the varying grades of liberalism to avowed radicalism of the most modern type, were there represented and there found free expression. These two facts alone are sufficient to stamp this particular Pan American Conference as a significant and unique achievement which, viewed in retrospect, can hardly fail to be regarded as an outstanding milestone in the upward march of the women of this western world toward human freedom and equality and as a new point of departure in the anxiously sought road toward international peace.

Another notable feature of this conference was the unity of spirit which distinguished the delegates, and the atmosphere of harmonious sympathy and genuine Pan American confraternity which marked both their official and unofficial intercourse. In spite of the diversity in racial and national tradition, in speech, in religion, and in those innumerable and less tangible elements which enter into the formation of national character, the interdelegation rivalries and animosities which, unfortunately, so often mar international gatherings, were in

¹ See pp. 32-35 for list of delegates.

this meeting of women conspicuous by their absence. Gathered together in a spirit of cooperation and inspired not only by the spirit of feminine solidarity but a genuine desire to further the progress of civilization, they proceeded to compare and exchange experiences, ideas, hopes, and ideals as these apply to the educational, social, and civic problems of their respective countries.

The Pan American Conference of Women, thanks to the gracious courtesy of the League of Women Voters, preceded the convention sessions proper, the inauguration meeting taking place on the morning of April 21 in the roof garden of the Century Theater, Mrs. Maud Wood Park, the president of the League, presiding. The Divine blessing was invoked by his Grace, the Most Reverend Michael Curley, D.D., Archbishop of Baltimore. Eloquent and hospitable addresses of welcome were delivered by Mrs. Charles E. Ellicott, representing the women of Maryland, Dr. L. S. Rowe on behalf of the Pan American Union, Gov. Albert C. Ritchie on behalf of the State of Maryland, and Mayor William F. Broening on behalf of the city of Baltimore.

Child welfare was the all absorbing topic of the first session, which was under the able direction of Miss Grace Abbott, Chief of the Children's Bureau, United States Department of Labor, assisted by Mrs. La Rue Brown, chairman of committee on child welfare, National League of Women Voters. Brief reports were made by the visiting delegates—which were the more humanly interesting because in most cases informal—on what has been accomplished in their respective countries with regard to the care and protection of children, and the objective points toward which such activities are now directed. Particularly, mention should be made of the very comprehensive and sympathetic report made by Madame Joubert, the wife of the minister from Santo Domingo, recounting the very considerable advances in the field of Child Welfare made by the cultured women workers of that Island Republic. These reports were of deep interest to the United States and Canadian delegates and the League members in general who again and again expressed their pleasure and—it must be confessed!—their surprise to learn of the up-to-date character of much of the work accomplished by the Latin-American workers in this particular field, particularly in view of the often limited State and municipal budgets available for the purpose as compared with those in this country. It is not too much to say that the facts submitted in the opening session were somewhat in the nature of a revelation to a no inconsiderable number of those present, a revelation calling for an immediate revision of preconceived estimates and theories with regard to the status of their Pan American sisters and the part they are playing in the civic and national activities of their respective countries. Not the least surprising element in many of these reports was the fact that they were delivered in English—a



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OFFICIAL DELEGATES TO THE PAN AMERICAN CONFERENCE OF WOMEN.

1. Mme. Beltrán Mathieu, wife of the Chilean Ambassador. 2. Mme. Tomás A. Le Breton, wife of the Argentine Ambassador, representing the National Council of Women, Argentina. 3. Mme. Olga Capurro de Varela, wife of the Uruguayan Minister. 4. Mme. Ofelia Pérez de Joubert, wife of the Minister of the Dominican Republic. 5. Mme. Francisco de Sánchez Latour, wife of the Guatemalan Minister. 6. Señora Arcadia C. de Zalles, wife of the Honorary Financial Attaché of the legation of Bolivia.

language notoriously difficult to the Latin tongue—which, perfectly clear and intelligible, was all the more interesting and heart-gripping for an occasional quaint phrasing or idiom and the always unaffectedly charming manner of the speakers. Perhaps nothing in the entire conference made a more direct or deeper impression as to the real quality of the Latin American woman's character and personality than her obvious ability to express herself in a foreign tongue And inevitably came the thought: what will become of that *con-sagrado* "gulf" between the Anglo Saxon and Latin races, when even the difference of speech is being bridged in such gallant fashion? And that other disturbing thought which would not down in the minds of the United States and Canadian delegates: How many of us when we officially return this gracious visit of our Latin American sisters will be able to measure up to the high standard they have set us, will be able to effect contact of mind and heart in either the language of Cervantes or of Camoens? It is indeed disquieting to think that this so time-immemorial dividing "gulf" may be—if it exists at all—of Anglo-Saxon making, or due to Anglo-Saxon inertia.

The afternoon session was in charge of Miss Julia Abbott, of the Bureau of Education, United States Department of the Interior, assisted by Mrs. Walter Du Bois Brookings, chairman of the committee on American citizenship, National League of Women Voters. The subjects discussed in three-minute speeches by the Pan American delegates were the common problems of: Responsibility of higher education for public service in (a) overcoming illiteracy, (b) the training of teachers, (c) the establishment of Parent-Teacher associations; and mutual understanding through education by means of exchange students and professors and the cultivation of the languages of Pan America. The response on the part of the Pan American delegates was immediate, intelligent, and forward looking, Miss Abbott's well chosen introductory remarks serving as a sympathetic background to the program of the afternoon.

The reception to the Pan American delegates by the national board of the League at the Hotel Belvidere in the evening afforded the League of Women Voters and their invited friends the first real opportunity of becoming acquainted with the visiting delegates in intimate fashion, an opportunity which was improved to the utmost. It is not too much to assume that as a result of the intercourse on this and numerous other social occasions, entirely outside the formal sessions of the conference, the foundations of many lasting friendships were laid, the cumulative and enduring effect of which in the more subtle and intangible processes of establishing a better understanding between the American nations can hardly be estimated. And curiously enough, in view of the vast amount of printed matter

on the supposed impassable gulf separating the two races, these friendships are largely the result of the many points of resemblance in condition and purpose, in suffering and sacrifice, in aspiration and achievement.

The morning and afternoon sessions of the second of the three conference days were devoted to a round table discussion on "Women in Industry," directed by Miss Mary Anderson, Chief of the Women's Bureau, United States Department of Labor, assisted by Miss Mary McDowell, chairman of committee on women in industry, National League of Women Voters, and the "Prevention of Traffic in Women," directed by Dr. Valeria H. Parker, executive secretary, United States Interdepartmental Social Hygiene Board, assisted by Mrs. Ann Webster, chairman of committee on social hygiene, National League of Women Voters. Among the various aspects of these subjects which were considered may be mentioned: The appointment of qualified women in all public agencies, commissions or tribunals, both State and municipal, dealing with the interests of women; the limitation of daily working hours for wage-earning women to 8, or 44 hours weekly, with one day's rest in seven; the prohibition of night work for women in industrial occupations; the prohibition of the employment of women six weeks before and after childbirth; results of the conferences at Geneva (June, 1921) and Rome (November, 1921); and existing and recommended international treaties relating to traffic in women.

As was to be expected the first of the subjects mentioned elicited the most forceful response from the delegates of those American republics in which factory work in the towns and cities is already a condition to be reckoned with, in contradistinction to the predominating agricultural occupations which obtain in the rest of the American republics. Judging from the remarks of their respective delegates, Mexico, Uruguay, Argentina, Chile, and Brazil are already facing the same economic problems with respect to the work of women and children—although naturally to a lesser degree—as their sisters in the United States and Canada. That they may profit by some of the mistakes of the latter was a fervent wish echoed and reechoed during this discussion. The discussion on the traffic in women was an animated one, in which practically all the visiting delegates took part. Admirable addresses, which formed a solid background for discussion, were made by Doctor Parker, Mrs. Joseph T. Bowen, of Chicago, and last but not least Mrs. Emmeline Pankhurst, National Council of Canada for Combatting Venereal Diseases, the redoubtable former leader of the militant suffragists of England, who received a veritable ovation. It was abundantly clear that while much had been done and was being done everywhere in America to eliminate this evil—including the adoption of the single standard in several countries and



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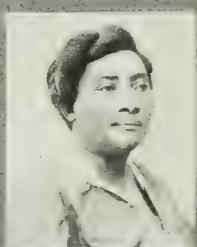
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Courtesy of National League of Women Voters and *El Exportador Americano*.

OFFICIAL DELEGATES TO THE PAN AMERICAN CONFERENCE OF WOMEN.

1. Miss Bertha Lutz, Brazil. 2. Dr. Grace Ritchie England, Dominion of Canada. 3. Señorita Graciela Mandujano, Chile. 4. Señora María Suárez de Coronado, Colombia. 5. Señora Sara Casal de Quiros, Costa Rica. 6. Señora Emma López de Garrido, Cuba. 7. Señora Matilde de Carbo, Ecuador. 8. Señora Hortensia Balarezo, Ecuador. 9. Mme. Charles Dubé, Haiti. 10. Señorita Mercedes Lainez, Honduras. 11. Señorita Elena Torres, Mexico. 12. Señorita Euallia Guzmán, Mexico.

in one, at least, obligatory instruction in sex hygiene and eugenics—much still remains to be accomplished.

The morning session of the third and last day of the conference was devoted to a round table discussion of the civil status of woman, Mrs. Mabel Walker Willebrandt, Assistant Attorney General, United States Department of Justice, presiding, assisted by Mrs. Catherine Waugh McCulloch, chairman of the committee on uniform laws concerning women, National League of Women Voters. In a particularly lucid and eminently practical manner Mrs. Willebrandt opened the discussion by briefly comparing the two widely divergent conceptions of marriage inherited by the Latin and Anglo-Saxon races: the Roman-Napoleonic, according to which marriage was in the nature of a partnership between the contracting parties—a view which in more or less modified form is still in Latin American countries the basal principle of the legal aspects of marriage—and the ancient Anglo-Saxon, according to which the wife, her goods and even her children became the more or less absolute property of the husband—in other words a chattel. It must be admitted that the comparison was anything but flattering to Anglo-Saxon pride, and that it came somewhat as a rude shock to those who harbor complacent convictions as to the innate superiority of everything Anglo-Saxon. Nevertheless, it was interesting to note that, in spite of this inauspicious beginning, the so-called Anglo-Saxon nations—England, the United States, and Canada in particular—have managed to “muddle through” in such fashion that at the present day their women enjoy, on the whole, greater personal freedom, in both a social and legal sense, than the women of any other nations.

The discussion of this subject was perhaps the most animated of the entire conference. Delegate after delegate arose to express her feeling in the matter, until it was abundantly clear that while much had been done to equalize the privileges and penalties of woman in the married state more, much more, remains to be done, and it was equally clear that the delegates purposed having a hand in the doing of it. The Canadian delegation made a valuable contribution to the discussion, Canada being in the unique and interesting position of having to administer laws based upon both the Roman-Napoleonic and Anglo-Saxon foundations.

The afternoon session was notable in that it included addresses by Mrs. Carrie Chapman Catt, president of the International Woman Suffrage Alliance and honorary president of the League of Women Voters, and the American-born Lady Astor, the first woman to enter the British Parliament, she holding a seat in the House of Commons as the member representing the Sutton division of Plymouth. Mrs. Catt's address was from many points of view one of the most forceful of the conference. Herself one of that eminent group of suffragists



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Courtesy of National League of Women Voters and *El Exportador Americano*.

OFFICIAL DELEGATES TO THE PAN AMERICAN CONFERENCE OF WOMEN.

1. Señorita Luz Vera, Mexico.
2. Señora Aurora Herrera de Nóbregas, Mexico.
3. Señorita María Clotilde Vega, Nicaragua.
4. Señora Ester Niera de Calvo, Panama.
5. Señorita María Felicidad Gonzáles, Paraguay.
6. Señorita Margarita Conroy, Peru.
7. Mrs. Joseph T. Bowen, United States.
8. Mme. Jaime C. de Veyra, wife of the Resident Commissioner of the Philippine Islands in Washington, D. C., Philippine Islands.
9. Señora Milagros Benet de Mewton, Porto Rico.
10. Señora Celia Palidino de Vitale, Uruguay.
11. Señora Mercedes de Guevara, Venezuela.

to whose untiring and devoted efforts the women of the United States largely owe the franchise they now enjoy, a woman of national and international experience, she addressed the visiting delegates first, last, and always as women and sisters. It was very clear that she was conscious of no separating racial gulf, no barrier of tradition, religion, or speech which could possibly prevent the meeting of the minds and hearts of the women of the Americas, and, to judge by the spontaneous and overwhelming tribute of applause which greeted and punctuated her remarks, neither was any of her hearers. Certainly not Lady Astor, whose remarks, seasoned with the ready wit and unfailing geniality which are so characteristically her own and which very obviously have suffered no "sea-change," were like a briskly blowing breeze, heartening and refreshing alike to both the home and visiting delegates, and to all lovers of international friendship and peace.

Strictly speaking, the session just described marks the close of the Pan American Conference of Women, the regular sessions of the National League of Women Voters beginning on the morning of April 24. In reality, however, owing to the fact that the delegates to the conference were conceded the privileges of league members in the convention (with the exception of the vote), the former to a great extent simply merged into the latter.

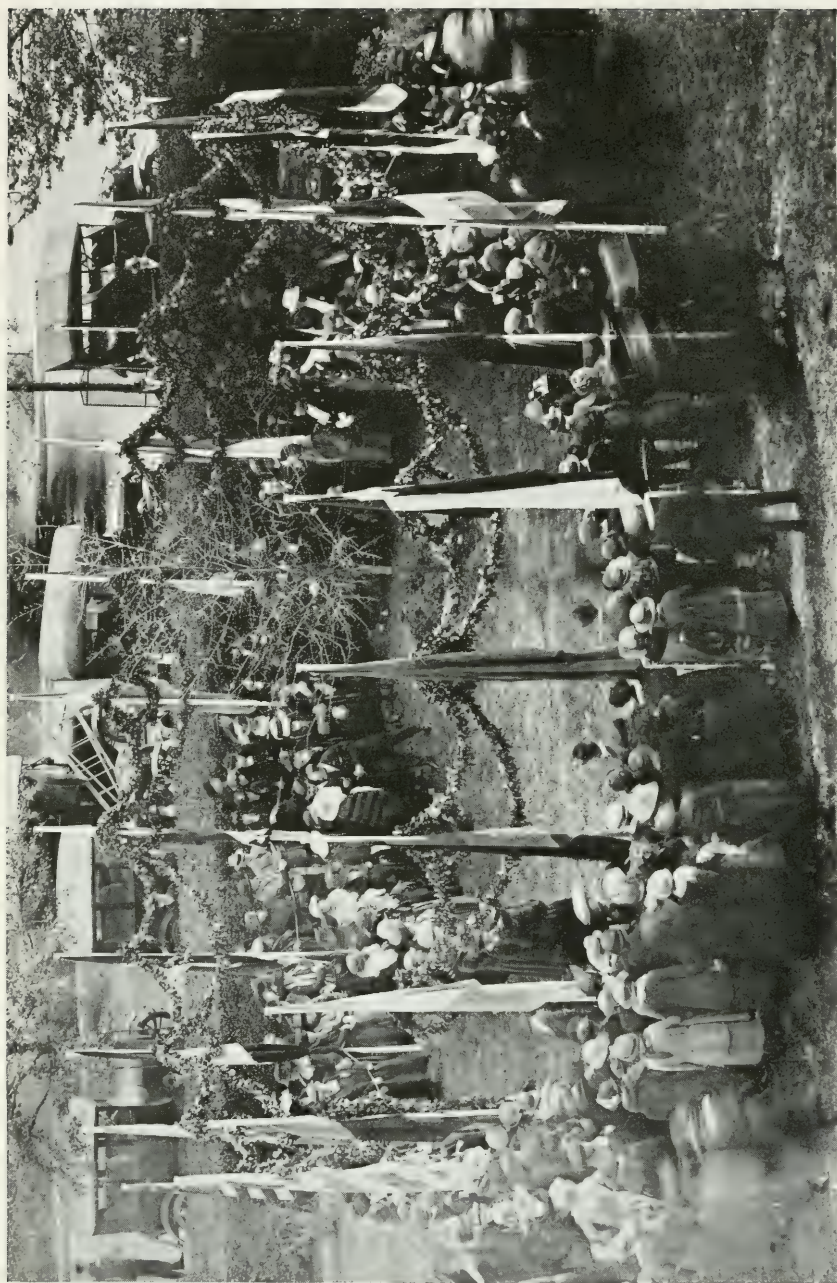
Before, after, and during the sessions, the visiting delegates were the recipients of every attention which could conceivably contribute to their comfort and pleasure, not only on the part of the league committee appointed for the purpose, but at the hands of the most representative women of Baltimore and the State of Maryland in general. American hospitality is famed the world over, and the Southern brand, represented on this occasion by Maryland and the National Capital, fairly outdid itself. From the delegates' arrival on United States soil, their progress was marked by a series of welcoming receptions and entertainments. Among the latter may be mentioned: The tea at Goucher College by the faculty and students; the banquet on April 20 in the Century Theater roof garden, when notable addresses were made by Srta. Mandujano, Sra. López de Garrido, and Srta. Torres, official delegates of Chile, Cuba, and Mexico, and other speakers; the automobile trip to the United States Naval Academy at Annapolis; the reception and tea by Governor Ritchie at Government House; the innumerable teas and lunches in their honor at the homes of some of the most prominent women of Baltimore and Washington; the breakfast at Bryn Mawr College by the dean; and the social festivities in Washington which, originally intended to be compressed into April 28, ran over into the 29th and well into the following week, and which included visits to both Chambers of Congress, a reception at the White House by President and Mrs. Hard-

ing, a score of luncheons and teas by as many distinguished Washington hostesses, the various delegation teas at the British and Latin American embassies and legations; visits to Continental Memorial Hall and the American Red Cross Buildings—a mass meeting in the former and a reception in the latter—and the profoundly interesting and significant festivities in the Pan American Union during the afternoon of April 28.

In spite of space limitations, the festivities in Washington demand a special word. The visit to the Red Cross Building was made during the forenoon of the 29th, the visiting delegates being accompanied by Dr. L. S. Rowe, the Director General of the Pan American Union, Mrs. Frederick van Lennep, of New York and Valparaiso, Chile and Mrs. W. G. Rice, jr., of the League Pan American committee, and Mrs. Harriet Chalmers Adams. Among those in the receiving line were National Chairman Judge John B. Payne; Miss Boardman, secretary; Arthur W. Dunn, national director of the Junior Red Cross, and Mrs. Dunn; Miss Noyes, director of nursing service; Miss Fox, director of public health nursing; and Miss Dinwiddie, director of information service. Addresses of welcome were made later by Miss Boardman and Judge John B. Payne, after which motion pictures illustrating Junior Red Cross work in France and Rumania, were shown in the assembly room, followed by practical demonstrations on the part of youthful members of the Junior Red Cross in home hygiene and care of the sick and the proper method of bathing and dressing a baby, the latter of such intense interest to the visiting delegates that it was with difficulty they were persuaded to tear themselves away to visit the museum and other sections of the beautiful Red Cross Building.

In the afternoon of April 28, the visiting delegates to the Pan American Conference of Women and the League members in general were the guests of the Pan American Union. That admittedly most beautiful of Washington's many beautiful buildings, the visible temple and shrine of one of the loftiest of human aspirations, was at its supreme best. Spring was at high tide in the patio and gardens, indoors and outdoors the eye was caught and held by visions of beauty—of the sky full of light and deity; of the interlacing green of leafy bough and branch; of emerald turf starred by frail many-hued blossoms; of limpid, murmurous fountain and lily-flecked pool—and by that more enduring efflorescence of human genius which, under the shaping hand of architect and sculptor, have blossomed in marble and stone to fittingly enshrine the greatest and best of Pan American ideals.

Shortly before 4 o'clock the strains of the United States Marine Band attracted everybody to the lawns on the south side of the building where, at the center of a circle formed by the laurel-garlanded



Photograph by George F. Hirschman.

THE TREE PLANTING CEREMONY IN THE GROUNDS OF THE PAN AMERICAN UNION, APRIL 28, 1922.

"Shortly before 4 o'clock the strains of the United States Marine Band attracted everybody to the lawns on the south side of the building where, at the center of a circle formed by the laurel-garlanded flags of the American nations, the commemorative tree to be planted by the Pan American delegates awaited their gentle but vigorous touch."

flags of the American nations, the commemorative tree to be planted by the Pan American delegates awaited their gentle but vigorous touch. It was a most beautiful and impressive ceremony, a symbolic rite, as it were, in which the women of America pledged themselves to foster the growth of international friendship and peace, that its roots may penetrate ever more and more deeply into the consciousness of the peoples of this American Hemisphere, against the great day of universal "peace and good will among men."

The Hon. Calvin Coolidge, Vice President of the United States, who was introduced by the Director General of the Pan American Union, made a brief address in which he reminded the delegates that:

Society is more and more taking counsel of all its parts. The rule of the people is being more and more extended. The common welfare is now the concern of all. There are some problems with which men are peculiarly fitted to deal; there are others which lie within the special province of women . . . Ideals do not remain stationary. They grow and flourish, or they decline. The ideal of the American Continent has the strength and purpose that guarantees its growth. It is fittingly symbolized in the planting of a tree, which holds the hope of growth and expansion in beauty of bloom and the fruit of harvest, representing, through the processes of nature, processes of order and liberty upon which the institutions of all the republics of the American Continent can rest.

At the close of the Vice President's remarks a silver trowel, loaned for the occasion by the American Forestry Association, which has been used by women's organizations on more than 1,300 previous tree-planting occasions, was handed by Doctor Rowe to Mr. Coolidge, who laid the first trowel of earth in place, followed in quick succession by Mrs. Hughes, Mrs. Coolidge, and one member from each delegation who, in behalf of the nation she represented, laid a trowel of earth at the roots of this symbolic tree which, by the way, is a sturdy young willow oak. Madame Maria Suárez de Coronado, who acted for Colombia, voiced the innermost feeling of all the participants when, trowel in hand, she exclaimed: "O tree! that in thy young slenderness dost symbolize one of our dearest and most sacred aspirations, the fellowship and confraternity of the American nations! Mayest thou grow in stature and strength to adorn with thy leafy foliage the gardens of this beautiful shrine of the Pan American ideal; and may we in affectionate remembrance of this high moment keep pace with thy growth in our individual and national contribution toward the realization of our common hope—the solidarity in friendship and esteem of the nations of this continent!"

Immediately after the conclusion of this ceremony the delegates, members of the League, and other distinguished invited guests, numbering well on to 2,000, turned their steps indoors, to the reception given in the Hall of the Americas by the Women's Auxiliary Committee of the Second Pan American Scientific Congress in honor of the visiting Pan American delegates. At the head of the receiving

line stood Mrs. Charles Evans Hughes, chairman ex officio of the Woman's Auxiliary Committee, accompanied by Madame Le Breton, wife of the Ambassador of Argentina, and Madame Mathieu, the wife of the Ambassador of Chile, Dr. L. S. Rowe, the Director General of the Pan American Union, presenting the delegates in turn, as they passed before the receiving line. Tea and other refreshments were served in the map room on the ground floor, which was beautifully decorated with growing plants and flowers for the occasion, Mrs. Glen Levin Swiggett, Mrs. Archibald Hopkins, and other members of the auxiliary committee presiding at the tea tables, assisted by the entire staff of the Pan American Union.

The mass meeting in Continental Memorial Hall in the evening marked the conclusion of the Pan American Conference of Women and the convention of the National League of Women Voters. Seldom, if ever, have the benign pictured faces of the great national prototypes, George and Martha Washington, gazed upon a more distinguished and cosmopolitan gathering—of women, essentially—than that which filled to overflowing the Assembly Hall so hospitably loaned for the occasion by the Daughters of the American Revolution, Mrs. Maud Wood Park, the president of the League presiding. After a few brief remarks Mrs. Park introduced Secretary Hughes, the first to address the assemblage on the subject of the evening: "What the Women of the Americas can do for International Friendliness," who expressed himself in part as follows:

You ask, "What can the women of the Americas do to promote friendly relations?" I am tempted to answer, "What cannot women do?" I do not, however, look upon women as having in our political life segregated tasks or obligations. It is their simple duty, as it is the duty of men, to fulfill their part as training, experience, talent, and opportunity permit.

The first essential is a true perspective. We are apt to think of our relation to public affairs in terms of political campaigns, or candidacies for office, of militant political organizations. But those represent only a small fraction of civic duty and privilege, and government after all is but a small part of life. . . .

The fundamental matters are health and education. Here are practical concerns as to which the State must do much, but the final success must ever be found in the home and in the social standards of the community. It is the everyday self-discipline and home hygiene that count for the public health, and it is by the standards of the home and social circle that you must measure the actual extent of educational influence. You can not grow a fine human crop by statute. Undoubtedly, woman will have a most helpful and conserving influence in our political life, but her most important contribution, whether in or out of politics, will be found in what she does to protect the bases of society itself. There can be no success with the political structure if woman fails in her work upon the foundations.

Meetings of this sort have a special value in the opportunities they afford for the interchange of information as to political and social experience. Our republics are in truth laboratories of political experiment. Indeed, the business of democracy seems to consist chiefly in experimentation. These experiments tell us of failures as well as of successes, of the dangerous roads which have led to disorder and social distress as well as of happy results. It is extraordinary to what extent we have been

willing to forego the advantage of studying the political experiences of others, and in the recent organized endeavors to promote interchanges of views between the peoples of different commonwealths we have one of the most hopeful indications of our day. Even in our American States, united as our people are by common traditions and aspirations, there has been altogether too little of this exchange of information, and too often we have entered upon ambitious governmental schemes without taking account of similar experiments already tried. What can be more valuable for the American Republics than to give to each other, through the voluntary cooperation of those who represent public opinion rather than mere official policy, full information of maladies and remedies, of what is being tried, and the direction in which success lies? . . .

There is much talk of basic differences between the Latins and the Anglo-Saxons, and of course it would be idle to ignore the distinction in racial traditions. But the resemblances in the nature of the problems and in the efforts that must be made to solve them are far more striking than any differences in racial types or historical development. . . .

As you have within your control, in large measure, the public opinion of our Republics, so you will be correspondingly responsible for the maintenance of the mutual respect and good will in which alone can be found the basis of an enduring peace. It is a slow process—the process of international enlightenment, of getting rid of suspicion, distrust, and hatred—of making the demands of justice, and not those of national prejudice, the governing influence in international intercourse. Peace can not be secured by forms of words or declarations, or by any formal procedure where the spirit of peace is absent. There is only one cure for the present disorders of the world. Face the facts; deal with causes and not symptoms; establish the basis of confidence in respect for life, property, and contract. Credit does not precede but follows confidence; and the first requirement of those who demand justice and security is to give justice and security. . . .

The honorable Secretary of State was followed by his Excellency, Señor don Beltrán Mathieu, Ambassador of Chile, who in a series of witty and amusing observations expressed his innermost misgivings as to the wisdom of having agreed to address a feminist audience on a matter as to which he felt he was but little informed and in a language not his own. No such misgivings, however, troubled his hearers, who followed with the keenest interest the genial Ambassador's illuminating exposition of the rôle played by the Latin American woman, in general, and the honorable position occupied by her in the home and in the esteem and affection of her men-folk. Because of its peculiar interest in connection with the conference, his Excellency's remarks are given practically complete:

In the presence of this large and distinguished assembly I find difficulty in explaining to myself the temerity which led me to accept with a light heart the invitation to speak on a subject which I do not understand, and in a tongue which in the way that I speak it will be unintelligible to you. By not being able to understand me you will lose but little.

My acceptance of this generous invitation proves the persuasive powers possessed by your worthy president, Mrs. Park, whose request I could not refuse. Fortunately for you, my remarks must necessarily be brief—limited by two facts to which I have already referred, namely, the limitations of my English vocabulary and my lack of acquaintance with the subject. I may remark in passing, however, that a lack of acquaintance with a subject often gives rise to discourses of unusual length.

I must confess that my own views with reference to the feminist movement, which has moved forward with such success in this country and which is in its initial stages in the other republics of the American Continent, are still in a formative state. This movement in the United States compels attention and arouses deep interest in a foreigner, especially when he is of a different race, educated in another environment, accustomed to different traditions, and a different point of view. I must confess to you that prior to coming to this country I had given little thought to this interesting and highly important problem.

The situation presented in this country has led me to reflect on the subject, and not only to formulate the inquiry as to whether political rights should be granted to women, but also to seek a solution. And why should political rights be withheld from women? In seeking the answer I have first placed myself in the position of one who defends a monopoly, and it is well known with what ingenuity and force of argument the possessors of a monopoly defend their position—especially a position which gives certain definite advantages.

In spite of all the arguments and objections which I have been able to marshal, I have not found any of real weight which would justify withholding from women the rights to which they are entitled. I, therefore, find myself compelled to surrender and prudently to renounce that portion of the irritating and unjustifiable monopoly which I have heretofore enjoyed.

I designate the monopoly irritating and unjustifiable because there exists no moral or intellectual inferiority of women which justifies withholding from them any of the rights granted to men.

Amongst us Latin Americans, woman's sphere is inseparably connected with the home, which we consider the natural center of her activities. Our families are almost patriarchal, and around the mother there are grouped, as around an altar, the numerous children and grandchildren over whose destinies she presides and for whom she is prepared to make every sacrifice. In fact, the vocation of our women is consecration to those sacred duties which marriage creates, and upon which they usually enter at a tender age.

It is but natural that, absorbed with these duties, they have not had time for other activities and up to the present time there are but few indications of any definite movement towards modifying this situation, except the reform of certain laws relating to the marriage contract, the purpose of which is to place the parties to the marriage contract in a position of greater civil equality.

The education of women has been characterized by a certain superficiality, dictated in part by the requirements of what is usually referred to as "good society." This education has tended toward emphasizing the qualities that make for social adornment and brilliancy. We have taken for granted that the obligation to meet the material necessities of the home rests upon the men, and have, therefore, given but little effort toward preparing women for such contingencies. They, therefore, find themselves with exceedingly limited capacity for remunerative work, when they are compelled to meet such a situation. In view of this situation, education in our countries is now moving forward with great strides to repair the mistakes and shortcomings of the past. Women are now being prepared for more practical work, with the idea of equipping them to enter the struggle for existence without the handicaps which they have heretofore suffered. Technical and professional schools are rapidly multiplying, and the large number of women who attend them indicate that they meet a real need which has in the past been neglected.

Aspirations for active participation in political life have not as yet become vocal in our countries, and in general it may be said that the opinion of women on these questions usually echoes that of the father, husband, or brothers who form the family circle, thus sparing the family circle from the partisan conflicts which dominate national political life.

I desire to make it clear that I am setting forth without commentary the actual conditions that exist in Latin America. My words are intended to convey to you what exists rather than what should exist. To set forth what should exist I feel myself unprepared, for the reasons to which I have already referred, in spite of the fact that I have learned much in this country and from the deliberations which you are about to bring to a close.

When, in our countries, we speak of the United States and of the marvels that here exist (some of which, may I say in parenthesis, we exaggerate into fantastic form), the one which stirs the imagination to the greatest extent is the dominant part played by the women of this country. This explains why the beautiful eyes of our compatriots turn with envy toward this fortunate section of the hemisphere. It is true that one need not travel far in this country to persuade one's self that this great part played by women is no exaggeration and does not enter into the category of the somewhat fantastic tales that are circulated in our countries with reference to the United States.

Here in the United States everything seems to revolve about you, and your influence is so great that I am convinced, for instance, that the eighteenth amendment to the Constitution of the United States would never have become a reality had it not been for the far-reaching influence on public opinion exercised by your organizations. Speaking of this amendment, one hears to-day many protests, but future generations will owe you a debt of gratitude for having liberated them from a vice which was undermining the stamina of the race and for having removed a blot on our civilization.

I feel certain that you will perform the same great service by eliminating the human sacrifice involved in warfare and by removing many other evils which to-day menace our social organization. Your program is a generous program of human betterment and we are grateful to you for having given participation in your deliberations to your sisters from the other sections of the continent who will return to their respective homes with new enlightenment, with hearts filled with gratitude, and possessed of a new faith which is certain to have a far-reaching influence in their respective countries.

What can the women of America do to cultivate more friendly relations?

Exactly what you have been doing in these significant meetings. Coming together to know one another better, to exchange ideas, and to associate in a common purpose for the furtherance of a more perfect civilization.

The next speaker was Sir Auckland Geddes, the British Ambassador, who after humorously reassuring Ambassador Mathieu with regard to his probable fate in connection with the feminist movement, proceeded to inform his audience that he could say a lot of nice things about women, but that he had not the slightest intention of doing so. Instead, he declared in the plainest of words that if women who enjoy the franchise do not free themselves of the prevailing ignorance with regard to the really vital problems in national life, they will be a positive menace and danger to their respective governments, in so far as their influence in political matters is concerned. The vigorous applause with which these and many other home truths were received by the large and exceedingly representative body of women to whom they were addressed augurs well for the putting into practice of Sir Auckland's advice, the text of a considerable portion of which follows:

I hope it is not improper to refer to the few gentlemen here. Will you excuse me for a moment while I seize this opportunity of assuring my distinguished colleague, the Ambassador of Chile, that when he surrenders to this movement, which I think he

rather fears, he should be of good heart and of good courage. I voted for woman suffrage in the British Parliament and later I had the great honor and great pleasure of seeing the first woman member come into that Parliament and I have lived to tell the tale, and so has the British Empire. . . .

What can women do to increase friendliness among nations? That is what I understand we are here to discuss to-night and I propose to take that subject seriously and to see if there is anything direct, immediate, that every woman ought to do who wants to be sure that she is playing her part in developing, strengthening the friendship between nations; and there is something very direct and very important in my judgment at the present time that women can do. . . .

If women are going to exercise the influence on international affairs which it is their mission, their right and proper mission, to exercise, they will have to prepare themselves to understand what is the main interest of their nation at the present time and to fit themselves to express an intelligent opinion upon the subject in which the men will be principally interested. . . .

If you are going to work for friendliness between nations, which it is your rightful mission to work for, you must begin to study the things that are vitally affecting the interests of the nations as organized entities. There are within every nation hundreds of problems which are of vital importance to women. It is quite true that the intranational problems of the women of this country and of Canada are very much the same and that the one group of women may learn from the experience of the other. But although one may learn from the experience of the other, although one may guide the other—and that may be true between any two nations throughout the whole world—these intranational problems are not going to affect very seriously the international relations, if they are going to affect them at all. Women will have more power in one country than in another. In some countries the women will share equally with the men; in some they will either have too much or too little of the power. But that is not an international question, nor is the civic status of woman an international question—it is a question that first of all interests the women in each of the nations, but not a question affecting the relations between the nations as such. You must keep clearly in mind the distinction between the questions that interest the people of all the nations and the questions that are of interest and importance to the people of each separate nation—that is, the people in relation to their own State. And international friendliness, although it is enormously helped by contact, although it is very considerably helped by meetings such as you have been having, the real friendship of nations must come between their governments, which are the organized heads, the organized brains, and the organized voices of their countries. Now, women's influence in international friendship, friendship between nations, must come through the wisdom with which she exercises her rights as a voter; her rights as a free and full citizen of her own country, and her right therefore to participate in the formation of its government; and in order to exercise her rights as a voter with wisdom she must at least understand something about the great mass of economic problems and difficulties which is filling the minds of all the men who are concerned with international relations at the present time. That means study; it means hard work on the part of those who would be leaders among women. . . . And we must all, in every nation, interest ourselves in these questions in order that we may understand them, in order that an informed public opinion, the most powerful thing in the world, may be brought to bear upon the action of the government under whom each of us lives. . . .

It is absolutely necessary for all of us who would play our just and proper part, in these not easy times, to do what we can to understand something at least of the interest, of the difficulties, of the real importance of the economic differences and dangers which concern all nations of the world at the present time. . . .

If you would work for friendliness between the people, meet as many of other nations as you can, but each in your own nation, and you in Canada, fellow countrywomen, in yours, and the Latins in theirs, work; work that you may bring an informed mind and a real understanding to the guidance of your governments in their economic policy. Thus you will have done something to justify the ambition which you hold to help on peace and, if possible, to make war no more.

In presenting the Director General of the Pan American Union, Mrs. Park took occasion to express on behalf of both the Pan American Congress of Women and the League of Women Voters her deep appreciation of the unflagging interest, untiring efforts, and patient courtesy with which he had followed the committee's plans from the time of their inception and to which a large part of the success achieved was directly due. The applause which greeted Mrs. Park's remarks, made it abundantly clear that the League's president was indeed voicing the sentiments of that international assemblage of women. Doctor Rowe expressed himself in the following words:

No one who has had the privilege of attending the sessions of the Pan American Conference of Women can help but realize the deep significance of this coming together of the women of the Americas.

I recall when in 1916, in connection with the Pan American Scientific Conference, a group of earnest women, devoted to the cause of Pan Americanism, took the first step toward securing an interchange of views and experience between the representatives of North, Central, and South America. The important step then taken paved the way for the sessions of this conference. Important as have been the subjects to which you have addressed yourselves, the conference, viewed as a whole, possesses a significance far deeper than the content of the program. In this coming together of the women of the Americas, there is something that stirs the imagination, and that makes us see more clearly than ever before the larger significance of the Pan American movement. In fact, the conference which you have held and which is about to come to a close, marks a distinct and important step in the development of that movement.

No matter how cordial may be the relations existing between governments, they are never built on strong and firm foundations unless they rest upon the mutual understanding, confidence, and good-will of the masses of the people. It is, therefore, of the utmost importance that through conferences, such as these, the nations of America be made to see and appreciate the fact that their economic, social and educational problems have much in common, and that through cooperation, mutual helpfulness and interchange of experience, these problems can be most effectively carried towards successful solution.

You are meeting at a period that has marked the completion of a full century of national independence of many of the republics of this Continent. We all have reason to look back with deep satisfaction on the important progress that has been made during that momentous period. The path has been strewn with many obstacles. There have been dark hours in the history of all the American republics, when discouragement stared them in the face, and hope seemed at low ebb. What has saved them has been an unflinching faith in the principles of liberty and order upon which all real progress must rest.

We now see more clearly than ever before that our basic problems are social, educational and economic, rather than political, and the fact that you—the women of the Americas—have devoted yourselves to the consideration of the best means to solve these problems, will mean much to the countries that you represent.

The Pan American spirit which you have fostered at this conference does not imply the slightest spirit of antagonism to any other section of the world. It is a recognition of the fact that America has certain common problems and that in their solution the republics of this Continent must give to the world an example of solidarity and mutual helpfulness which means so much to the orderly progress and prosperity of the Western Hemisphere, and to the peace and progress of the world.

After a short intermission very pleasantly filled by the United States Marine Band, which rendered a very choice repertoire made up the national anthems of the countries of the Americas, brief addresses were made by Miss Bertha Lutz, Miss Margarita Conroy, and Madame Ester Niera de Calvo in representation of Brazil, Peru, and Panama, respectively. It should be added that owing to the impossibility of hearing from each delegation, the delegates as a whole had chosen the three ladies just named to represent them on this memorable occasion. In a brilliant speech, expressed in the most graceful and polished English, Miss Lutz referred to the happy conception in a woman's brain of the conference itself, what it had meant to the participants, and its value to them in the future, and how—to quote Miss Lutz exactly:

For the space of a few days the souls of women have mingled in a common ideal, to contribute their share to the progress of the world. From all points of the Americas they have come together—from the north, from the center, and from the south. There have been among them women who look with as yet only dawning comprehension on the new order of things, and women who have grasped them in their full significance; women who with the wide-opened eyes of dreamers are gazing unflinchingly into the future that lies before them; women who are valiantly engaged in the struggle, and women who can lay before us the first fruits of their toil.

We have seen the timid daughters of Latin America electrified into eloquence under the stimulus of contact with their northern sisters. We have seen them develop amazingly before our very eyes. We have seen the proud daughters of Canada, so rich in achievement, unbend to their younger sisters, and we have seen their faces light up in response to the warmth of tropical smiles. And above all, we have seen you, the splendid women of the United States of America; you, the citizen women of this great free land. From all our different countries you called us, and when we came in response to your message, to this large-minded generosity, you opened your hearts to us, so that although we are thousands of miles from the lands of our origin, we feel as if we had never left the shelter of our own homes. Your League of Women Voters, with its 2,000,000 members, has shown us the value of collaboration, has demonstrated to us the possibility of impartiality in politics, and has given us unforgettable lessons in citizenship. Your chairman has presided at all our meetings with calm dignity and perfect tact, and the women chosen to direct our sessions have been to us living demonstrations of the value of experience and efficiency and helpfulness. As a crowning result of the conference, the greatest of your leaders has helped us to found the first Pan American Association of Women and has consented to guide our first feeble efforts with all the motherly feeling that is in her. Before the wondering eyes of her newly adopted daughters she has opened the vision of all the women in America, united in a great league of progress and peace. * * *

Miss Conroy in the course of her remarks laid particular stress on the desirability of establishing a Pan-American Association of Women as proposed by Madame Varela, official delegate from Uruguay and

official representative of the Uruguayan Alliance for Women Suffrage—already discussed and approved by practically all the Pan American delegates to the conference. "I am firmly convinced," said Miss Conroy, "that the creation of such an association would be of the greatest benefit to us all. By making our relations closer it would be of incalculable value to all the women of the American Continent and, by reflex action, to the men also." And, if one may judge by the prolonged applause which greeted these statements, the audience thoroughly agreed with the speaker.

Madame de Calvo, official delegate from Panama, in the course of her well-chosen address, also expressed her approval of the Pan American Association of Women, whose purpose, she stated, "was to secure higher standards of education and rights for the women of the Americas; to promote friendliness and understanding among all the American countries; and the maintenance of perpetual peace in the Western Hemisphere." Madame de Calvo distinguished between the patriotism of the past which too often "tended to divide men . . . and to create enmities" and the newer conception of patriotism "which tends to bring men together . . ." and to teach man that "his future is dependent upon, is bound up with, the future of all others living in the same territory."

Any report of this memorable meeting would be incomplete without some reference to that earlier Pan American Conference which, under the able leadership of Mrs. Robert Lansing, the distinguished wife of the then Secretary of State, during the Second Pan American Scientific Congress held in Washington, D. C. (Dec.-Jan., 1915-16), broke a path and prepared the way for this and all succeeding conferences between the women of Pan America. Because of these facts, Mrs. Lansing's address, which followed Madame de Calvo's, was of special interest and significance to the representative body of women to which it was addressed. Mrs. Lansing expressed herself as follows:

It is always a happy occasion when the women of the American Republics meet together to confer upon subjects of common interest and by assembling to show a united purpose of helpfulness, a purpose which has taken such definite form and been so materially advanced through the organization which I have the privilege and honor to represent here to-night.

When six years ago there assembled in this city the Women's Auxiliary Conference, it was in response to the recognized desirability and need of a closer intercourse between the women of this hemisphere. We found that, while our countries possessed common political ideals and common commercial and industrial interests, there was lacking in our social relations that mutual sympathy and understanding which are essential to real friendship.

Here was a neglected field, which invited the activities of American womanhood. The Women's Auxiliary Conference, the first assemblage of women from all the American Republics, and the organizations which were formed to continue the work so propitiously begun, have labored assiduously to draw the women of the

Americas into closer accord and to create among them a spirit of good will and friendliness with the purpose of causing those of different nationalities to view with sympathetic interest the standards of life which prevail in other American countries where the social conditions are necessarily different.

It never has been the purpose of our organization to invade the field of politics or to suggest changes in the political systems of other American Republics. Those are domestic problems which each nation must settle for itself. They pertain to national sovereignty and any outside interference or influence would properly be resented by the people who possess that sovereignty. Our duty lies in making known to them our standards of life, and in learning of them their standards. They may learn of us. We may learn of them. What we should seek is complete understanding, for, if we understand one another, the great common purpose of international friendliness will be advanced.

To accomplish this object our chief agency is constant intercourse between those women of different nationalities, who appreciating the usefulness to their own countries of a better understanding of the social and intellectual life of others give their time and service to acquiring and imparting knowledge of this nature. It is a great task and deserving of the best thought of the women of the Americas. Necessarily the principal means of intercourse is by correspondence but the better and more effective means is by personal contact. It is, therefore, such a gathering of representative women as took place at the Women's Auxiliary Conference in 1916, and such a gathering as the present one, that are especially useful in advancing the cause of Pan American womanhood. The intimacy of personal acquaintance arouses in all our hearts that sentiment of sympathetic interest which is so desirable. The more meetings of this character, the more will be the enthusiasm for our cause and the more we will be able to achieve for our countries.

Pan Americanism, though originally a great international political policy, has by common consent been expanded until it now includes all other phases of intercourse between the Republics of this Western Hemisphere. To-day it embraces the social and economic, as well as the political relations of our peoples. Mutual helpfulness, which is the great underlying principle of Pan-Americanism, is finding wider and wider expression. It is manifested in various ways, but in none more definitely, or in my opinion, more beneficially, than in the united endeavor of the women of the Americas to cultivate that spirit of understanding friendship and of mutual confidence, which is the very foundation of lasting peace, the supreme desire of our nations and the earnest hope of all who seek to draw into closer union the Republics of the Western World.

Realizing our opportunity and our obligation we, the women of North and South America, must press forward and make our cooperation more complete and our influence in advancing the common welfare more potent. We must make our ideals something more than dreams. We must make them an actual force in the life of our country and in that of all our countries. We can by cooperation accomplish this. "Unity and cooperation" should be the watchword of the women of the American Republics.

Owing to illness, Mrs. Carrie Chapman Catt was unable to deliver the closing address of the evening. Instead, Mrs. Park requested Lady Astor to leave the box where she and Lord Astor had been interested listeners and to say a few concluding words, a request

which was as heartily applauded by the audience as graciously conceded by Lady Astor. Women are popularly supposed to enjoy having "the last word," and never did a member of her sex avail herself of this privilege more fully and with greater zest than Lady Astor on this occasion. With her accustomed vivacity and sparkle she reviewed the various masculine speakers of the evening, upon all of whom—with but one exception—she scored heavily. Cabinet officers, foreign ambassadors, and statesmen served one after the other as targets for the pointed but always genial shafts of her wit, to the immense amusement of her audience, including the victims themselves, who appeared to enjoy their castigation rather more, if anything, than the rest of the audience. Her parting words, however, were serious enough. They were:

I am very grateful to the visiting conference ladies and the women of the National League for asking me here, for I have found out that the women of the Americas, from the most northern province of Canada to the extreme southern tip of the continent, are thinking * * * that our sisters in these vast countries are thinking on the lines of the women of the United States and England, and I know that if we all think together, if we all think hard enough, we shall show the gentlemen that in spite of the slow process of civilization * * * women are just as useful, just as necessary, and just as wise as they are, if they are only given a chance. The League of Women Voters has given us all a chance—a chance to meet, a chance to talk things over, and I hope very much that the women of the Americas have set their hearts, as have the women of all the other countries, on a peace that passeth all understanding.

And, so after an *Hasta luego*—for Mrs. Park quite refused to say farewell—this most significant gathering passed into history, joined that goodly fellowship of things done, accomplished, which make up the sum total of human achievement, and long before these words are in type its members will be scattered over the enormous extension of this great Continent. But what a wealth of memories goes with them! of kindly human contact of mind and heart, of intellectual stimulus, of fellowship of purpose and community of interest, of high aspiration and endeavor, of gracious hospitality, and material and spiritual beauty seen from new angles of civic and national achievement—*bagaje intelectual* which, crossing unhindered all frontier barriers and customs, will give an added impulse to those beneficent agencies which, everywhere, are working to bring forth in man and women that international mind which, to quote Mr. Root, "will regard the several nations of the world as free and cooperating equals in aiding the progress of civilization, in developing commerce and industry and in spreading enlightenment and culture throughout the world."

DELEGATES ¹ TO THE PAN AMERICAN CONFERENCE OF WOMEN IN CONJUNCTION WITH THE ANNUAL CONVENTION OF THE NATIONAL LEAGUE OF WOMEN VOTERS.

Delegate.	Representing
Argentina:	
Mme. Tomás Le Bretón.....	National Council of Women, Argentina.
Bolivia:	
Señora Arcadia de Zalles.....	Official Delegate, Republic of Bolivia.
Brazil:	
Dona Bertha Lutz.....	Official Delegate, Republic of Brazil.
Srta. Beatriz de Queiroz.....	Y. W. C. A., São Paulo, Brazil.
Miss Annie d'Armand Marchant.....	Y. W. C. A., Rio de Janeiro, Brazil.
Canada:	
Grace Ritchie England, M. D.....	Official Delegate, Dominion of Canada.
Mrs. Emmeline Pankhurst.....	National Council of Canada to Combat Venereal Diseases, Toronto, Canada.
Mrs. M. L. Burbank.....	Women's Section of Canadian Council of Agriculture.
Mrs. H. H. Carpenter.....	Hamilton, Ontario.
Miss Lucy Doyle.....	Toronto, Ontario.
Mrs. Michael Healy.....	Women's Clubs, Dominion of Canada.
Mrs. James Condon Keenan.....	Toronto, Ontario.
Mrs. Edmund P. Kelly.....	Ontario Chapter, International Federation Catholic Alumnae.
Mrs. J. E. McClung.....	Ontario Chapter International Federation Catholic Alumnae.
Miss May Kennedy.....	Newfoundland Suffrage Association.
Dr. Augusta Stowe Gullen.....	National Council of Women.
Mrs. F. W. Marlow.....	Toronto, Canada.
Judge Margaret Patterson.....	Official Delegate, Province of Ontario, Dominion of Canada.
Mrs. H. P. Plumptre.....	Canadian Red Cross.
Mrs. W. E. Raymond.....	Women's Canadian Club of St. Johns, Quebec.
Mrs. M. W. Sherwood.....	American Women's Club.
City Councillor Mrs. Sidney Small.....	Toronto Citizenship Committee.
Mrs. Atherton Smith.....	National Council of Women.
Mrs. R. G. Smythe.....	Toronto Council of Women.
Miss Agnes Warde.....	Dominion of Canada.
Mrs. Arthur Rogers.....	Official Delegate for the Province of Manitoba, Dominion of Canada.
Mrs. John Bruce.....	Women's Canadian Club of Toronto.
Mrs. Donald McDonald.....	Daughters of the Empire.
Miss Mabel Sterling.....	Dominion of Canada.
Miss Kerr.....	Do.
Miss Mulholland.....	Do.
Mrs. Scott.....	Do.

¹ The Pan American Union does not vouch for the accuracy of this list of delegates, which was supplied through the courtesy of the League of Women Voters.

Delegate.

Representing

Chile:

Mme. Beltrán Mathieu.....Official Delegate, Republic of Chile.
 Señorita Graciela Mandujano... Do.
 Señorita Margarita Mieres.....Republic of Chile.
 Señorita Sofía de Ferrari Rojas.National Progressive Party.
 Señorita Zanelli López..... Do.
 Señorita M. López de Collio... Republic of Chile.

Colombia:

Sra. Maria Suárez de Coronado.Official Delegate, Republic of Columbia.
 Señorita Hortensia Coronado...Secretary of Colombian Delegation.
 Señorita María Ordóñez.....Colombia.

Costa Rica:

Señora Sara Casal de Quiros....Official Delegate, Republic of Costa Rica.

Cuba.

Señora E. López de Garrido..Official Delegate, Republic of Cuba.
 Señora Elena de la Peña.....Woman's National Suffrage Association.
 Señorita L. Z. del Portillo.....Cuba.

Dominican Republic.

Señora Ofelia P. de Joubert... Official Delegate, Dominican Republic.

Ecuador:

Señora Matilde de Carbo.....Official Delegate, Republic of Ecuador.
 Señorita Hortensia Balarezo... Do.
 Miss Beatriz Carbo.....Secretary of Ecuadorean Delegation.
 Señorita Pastoriza Flores.....Ecuador (Bryn Mawr College).
 Señorita Maria Flores.....Ecuador.

Guatemala:

Mme. F. de Sanchez-Latour...Official Delegate, Republic of Guatemala.

Haiti:

Mme. Charles Dubé.....Official Delegate, Republic of Haiti.

Honduras:

Señorita Mercedes Lainez.....Official Delegate, Republic of Honduras.

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 Srta. Eulalia Guzmán..... Do.
 Srta. Luz Vera..... Do.
 Sra. A. Herrera de Nóbregas...Official Delegate, State of Tamaulipas.
 Sra. Luisa Garza..... Do.
 Sra. Maria Rentería de Meza...Centro Feminista, Mexico.
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Nicaragua:

Srta. María Clotilde Vega....Official Delegate, Republic of Nicaragua.
 Srta. Juanita Molina..... Republic of Nicaragua.

Panama:

Sra. Ester Niera de Calvo.....Official Delegate, Republic of Panama.

Delegate.	Representing.
Paraguay:	
Srta. María Felicidad Gonzáles.	Official Delegate, Republic of Paraguay.
Señorita Ruby Gutiérrez.....	Secretary of Paraguayan Delegation.
Perú:	
Srta. Margarita Conroy.....	Official Delegate, Republic of Peru.
Srta. Zerla Anta.....	Republic of Peru.
Sra. Carmen de Pinillos.....	Am. Assoc. for International Conciliation.
Srta. Laura Meneses del Caprio.	Republic of Peru.
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Sra. Milagros Benet de Mewton.	Official Delegate, Porto Rico.
Mrs. A. L. Hopkins.....	Porto Rico.
Srta. Ascensión Besosa.....	Do.
Srta. Marchiana E. Font.....	Do.
Srta. María Machín.....	Do.
Srta. Mercedes Sola.....	Civic Club, San Juan.
Srta. María Frías.....	Porto Rico.
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Sra. Celia Paladino de Vitale....	Do.
Venezuela:	
Señora Mercedes de Guévara....	Official Delegate, Republic of Venezuela.
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Mrs. Raymond Morgan.....	Joint Congressional Committee.
Mrs. Emily Newell Blair.....	United States of America.
Mrs. Harriet Chalmers Adams.....	Washington, D. C.
Miss Bergland.....	Baltimore, Md.
Mrs. L. L. Childs.....	Sorosis.
Hon. Helen H. Gardener.....	United States Civil Service Commission, Wash- ington, D. C.
Miss Laura Keller.....	Sorosis.
Mrs. Benjamin Prince.....	Do.
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Mrs. Frederick Van Lennep....	Pan American Women's Committee, N. Y. City.
Mrs. Mina Van Winkle.....	Women's Bureau, Metropolitan Police Depart- ment, Washington, D. C.
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Miss Esther Ogden.....	
Mrs. Brooks.....	
Mrs. Hay.....	
Mrs. Ben Hooper.....	

Delegate.	Representing.
Mrs. Florence Kelly.....	Consumers' League.
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Miss Margaret Morris.....	American Association University Women.
Dr. H. Morris.....	Y. W. C. A., Baltimore, Md.
Mrs. Glen L. Swiggett.....	Women's Auxiliary Committee of United States, Second Pan American Scientific Congress, Washington, D. C.
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Miss Lucy P. Carver.....	Baltimore, Md.
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Miss Mary Stewart.....	Business and Professional Women's Club, Wash- ington, D. C.
Miss C. E. Mason.....	Pan American Round Table.
Mrs. J. J. O'Connor.....	
Mrs. Edgerton Parsons.....	American Association University Women.
Mrs. Francis Walker.....	Interpreter, Washington, D. C.



A TRIP TO THE CHILEAN SWITZERLAND

A VACATION VIGNETTE.¹

BANG! Sophisticated readers will know that such an onomatopoeic opening usually leads to war or murder reverberating through the pages that follow. But in this case there is nothing so terrible. It was merely the lid of the desk that banged on the papers I shot into it as, grabbing my bag, I ran for the train.

For, of course, I almost missed it. To methodical folk it is anathema to start a holiday in this manner. But there is a wild abandon in it, a joyous deriding of dignity that is good to feel. And by the time you get back your breath and are able to look about, the gray city is behind you and you are free from the sight of familiar things.

There are people who loathe train journeys. Restless people who do not agree with Stevenson that to travel happily is better than to arrive. Or people so steeped in self that they can not be entertained or touched by the human comedy that is ever being played in the little world of a railway carriage. It is true that a long railway journey is best for the spectator, and none more so than that begun in the night train that leaves Santiago for the south. The seclusion of the sleeping cars, shut in by darkness, gives one the impression that the carriage is a detached, pale, gleaming star rolling through space. To your ears where, cozily ensconced in a corner, you are busy with a book, there come snatches of conversation. It is compulsory eavesdropping from which one learns the prices of cattle and the fate of crops, the death of uncles and the full details of what the doctor said. Or it may be a savory election story of broken pacts and subtle intrigue.

ROLLING SOUTHWARD.

The illusion of a lost little world is deepened when the beds are made up and the yawning travellers seek sleep. One knows then what it must be like to the angel guard on the ramparts of heaven as the long sighs, the grunts of the corpulent, and the twitterings of sweet content rise from a retiring world. A kindly world, too, for an anxious voice asks somewhere in the silence, "Dear, are your feet cold?" And so we go rolling, rolling southward.

¹ The South Pacific Mail, Valparaiso, Chile, March 30, 1922.

In literal fact, however, we were not rolling. On awakening the following morning we learned that it was hours since we stopped rolling, a breakdown on the line having caused an eight-hour delay. Our whole itinerary was upset. To those unprovided with food it seemed as if they would have to put to the test the knowledge acquired from the adventure stories of their youth and chew the tongues of their boots for sustenance. When at last a stop was made for a meal, 18 hours after the previous one, there was a democratic scamper for a seat at the tables. You grabbed a chair, banged with your



BRIDGE OVER THE BIO-BIO RIVER, CONCEPCION, CHILE.

knife, yelled your order and—got *tallarines*.¹ The priest, the poet, and the painted lady passed the gray salt in a common cheerfulness. The only one who seemed resentful was the politician. By eloquent pleas for democracy and by the votes of Demos he had risen to a seat on the executive. Yet he carried himself like a king and expected extraordinary attention. You will be glad to learn that, like the rest of us, he got, in time, “*tallarines*.”

ACROSS THE BIO-BIO.

In the broad light of day we could be more sure that we were rolling southward, rather leisurely, it is true, but as the hours passed the hills receded to the east, the country became greener, and over the Bio-Bio we entered the undulating wheat lands. And here we once more ceased to roll. Almost at the top of a long gradient we stopped, and while the engine got its breath again, the sun began a spectacular

¹ Spaghetti.



PUERTO VARAS, ON LAKE LLANQUIHUE.

"Puerto Varas is a beautiful place * * *. One misses the picturesque disorder * * * and the warm tones of thatched adobe houses. Charming as it is, Puerto Varas is for most tourists, however, the jumping off place for the trip through the lakes to Argentine territory."

setting as if for our entertainment. Hundreds of feet below us stretched flat, fertile fields, away to the gray-green forest line on the horizon. Here the rain cloud that hung over us was torn in a great gash, through which welled the fused radiance of blood and gold. The honeymoon couple, who had sustained their gazing into each other's eyes the whole day, rose to still greater emotional heights. He knelt on the floor by her side, put his arms around her, and cheek to cheek they looked out on the gathering night. It was very touching!

"And so, by God's grace," as Pepys would say, we reached Temuco at midnight. More fortunate travellers who take this train will spend the night at Osorno and proceed the following morning to Puerto Varas. Early the following day we, too, set out for Puerto Varas, and as nobody seemed in any hurry about it (after all, why should they?) reached our destination in time for a late tea.

The line runs through a diverse country. Round about Temuco man and nature seem to break about even. Forest and cleared land alternate. Farther south nature appears to retain her supremacy, and tree-clad hills at whose base rolls a splendid river give the traveller moments of exaltation. But nearing Osorno it is seen that man has frankly conquered. There are fat arable lands and a little of the monotony of a settled countryside. Puerto Varas is on the outer fringe of this country, but is set on the side of the broad lake Llanquihue, dominated by the volcanoes of Osorno and Calbuco.

PUERTO VARAS.

Puerto Varas is a beautiful place, but it is not typically Chilean. The frame houses are too neat and too freshly painted. Roses bloom in the gardens, but they bloom too much in accordance with the gardening manual. There is not even enough dust on the roads. One misses the picturesque disorder of the true Chilean township and the warm tones of thatched "adobe" houses.

Beauty, however, has a thousand faces, and save when you find that the post office has no 5-cent stamps, you can forget that you are in Chile, and sense to the full the æsthetic stimulation it provokes.

Emotion remembered in tranquillity being, we are told, the motive of poetry, there is grave danger of giving way to verse when one thinks of the beauty of these shady roads set between green fields, with the blue lake stretching away to the heat-hazy horizon; of Calbuco, springing at one as it were, round the corner of the road, a magnificent mass of mountain glistening against a glorious blue sky; of the little deserted churchyard set in an umbrageous corner where the flowers bloom in a riot of color, and bees buzz over the graves of those who died far from home; of the chill solemnity of the Devil's

Pass; of meeting one's great-great-grandparents, for very like the old couple we saw driving in to church must have been our forebears. The rosy-cheeked old lady saw me, I am sure, as a white-faced laddie needing his holiday; but the snowy-bearded old man with the face of a confirmed sermon taster no doubt considered that I would have been better at church. If one did write poetry about it, the most sustained effort would concern itself with the sunset as seen from the brow of the hill far above the town. The—, but why attempt it;



Photograph by J. Wiederhold.

OSORNO VOLCANO FROM PUERTO VARAS.

"If one did write poetry, the most sustained effort would concern itself with the sunset as seen from the brow of the hill above the town. One would be sure to get the colors all mixed: the blues of lake and sky and twilight, the gold and crimson, and the tint of peach blossom that merged one into the other on the snowy cone of Osorno."

one is sure to get the colors all mixed—the blues of lake and sky and twilight, the gold and crimson and the tint of peach blossom that merged into the other on the snowy cone of Osorno. One would not know quite where to place the red roofs of the town or the evening star, while the serenity and romantic mystery could only be rendered by music.

EARLY DAYS.

Perhaps the old man who overtook me one evening had seen the sun set so many times that it had become commonplace. Anyway, he was in the mood for talk, and after learning, by the simple device of asking, that I came from the north, and wondering how anybody could live there, he told of the beginning of Puerto Varas. Of the



A MEMBER OF THE FAMOUS CARABINEROS WHO PATROL THE NITRATE FIELDS AND MOUNTAIN PASSES OF CHILE.

This branch of the Chilean military establishment is of inestimable value in safeguarding mining enterprises, railroads, and other industrial activities. The carabineros are a terror to evildoers, and on many occasions a score or more of carabineros have held at bay hundreds of striking workmen. These soldiers are also noted for the splendid horses they ride.

handful of emigrants, among whom he was a child of 6 years, pushing into the primeval forest along a track from Puerto Montt. How they built their tiny shacks and toiled through the long days at burning and felling trees. Of their first sowing in the earth between the stumps, so that after the first year they could be less dependent on food brought from town. In the years that have intervened from this period the whole aspect of the country had changed for him. The forest had gone, and lush fields where fat cattle graze now cover a prosperous countryside. Of course he was scornful of the present inhabitants. It was their fathers who farmed, he said: they merely play at farming.

One goes to bed early in Puerto Varas, though a little regretful, for under the rising moon snow-capped Osorno is gleaming in mystic light. The stars are paling in the new radiance, but as yet their reflections dapple the water that is breaking in miniature wavelets below one's window. It sounds like the beat of a pulse in the deep silence of the tranquil night.

TO THE ARGENTINE FRONTIER.

Charming as is Puerto Varas, it is, however, for most tourists the jumping-off place for the trip through the lakes to Argentine territory. The combination of conveyances for this tour is arranged to leave on Tuesdays and Fridays, so that the tourist who has time can choose the day on which he thinks the weather is most propitious. For it rains frequently in this zone. My own experience is that the weather is very much of a gamble. Moreover, a certain amount of gray weather and rain add considerably to the charm of the journey. However, once you have chosen the day, book a ticket at the office in the village and pack your toothbrush. But don't pack much more. For though this is one of the best organized excursions in the country, if not indeed the only one, and from the time you step on board at Puerto Varas until your return your bags are looked after by the company's servants, the less luggage you have the more comfortable will be the trip. And don't include a melon, as did one of our fellow passengers, who with truly patriotic intent wished to show his Argentine friends the luscious melons grown in Chile. That melon did reach the frontier, but it was a ghastly sight.

The *Llanquihue* is a trim little steamer which plays the dual rôle of yacht and cargo tramp fairly well. It loops along the lakeside, calling at jetties that hold the traveler's attention and instruct him on the export and import of pigs, kegs of butter, legs of mutton, etc., that constitute the trade of the country. By midday it reaches Ensenada, the terminal port under the shadow of Osorno. About three houses constitute this port, but one of them the travelers

recognize with pleasure as a hotel where an excellent lunch is ready to be served.

Some of our readers may regret the frequency of our reference to such a grossly material thing as food. But after all, meals are quite important things, and certainly they seem more so when the wild country through which you pass tends to give the impression that you have abandoned the track of the square meal.



FALLS OF RIO PETROHUE BETWEEN LAKE LLANQUIHUE AND LAKE TODOS LOS SANTOS.

After lunch you take your seat in a powerful motor car which, after a great deal of cranking, banging of the bonnet, and strange language from the driver, sets out on one of the most exhilarating journeys ever experienced. The road first passes through a grove of wild fruit trees which, if not particularly useful, are exceedingly decorative, then debouches on the base of the volcano, the contour of which is that of a cone formed by the regular flow of volcanic material on all sides. Being simply pumice stone, on this mountain side there is no vegetation save for a species of lichen that seems to thrive on the arid soil. On a day of intense sunlight the great snow-cap seems about 10 minutes walk away. On the first visit, however, low-hanging clouds blotted it out so that one's attention was mainly devoted to the wooded range of hills that rise sheer from the waters of the River Petrohue, the windings of which the road follows most of the way.

What the height of those hills is I have no idea, but the effect is that of a huge wall built up of magnificent trees. They crowd every ledge and crevice; not stunted bushlike growths, but trees of widespreading foliage of varying shades of green. Among them was one which was in flower, a white flower that, at places, looked like drifting snow, and at others gave one the impression that the eternal hills were getting a little gray on the temples.



THE WHARF AT PEULLA, LAKE OF TODOS LOS SANTOS.

TODOS LOS SANTOS.

Over this road, then, on rough volcanic ash, through deep dry courses worn by the winter torrents, about two hours later we reach Petrohue at the southern end of Lake Todos los Santos. From this point onward most of the places which by their names might appear to be at least a village, are at the best only a house. Petrohue had the necessary establishment and a tiny jetty at whose end lay the Steamship *Petrohue*, which the wag of the company warned us to step on, not over.

The Lake of All Saints is also called Esmeralda, which is a much more descriptive title, although we found that the translucent green of its waters was more that of onyx and jade than emerald. Perhaps this was the result of the overcast sky and the cloud wreaths that swirled about the wooded slopes, which came down sheer to the



THE LITTLE HOTEL AT PEULLA.

“This was Peulla, our lodging for the night. Indeed there is something very like a stage set about Peulla. The baths, beds, and meals are essentially practicable, and are particularly alluring at the end of the long day’s journey.”

water's edge. We recrossed the lake two days later under a cloudless sky with both shores clearly defined and every mountain appeared as if cut out in cardboard. It was magnificent, but not nearly so romantic as on this lowering afternoon when a fleeting shaft of sunshine would reveal an unexpected hillside and grey cloud, billow-like, smoke from a valley. It suggested the Scottish Highlands and broken clans taking to the heather, or the haunts of the gods of Wagnerian opera.

Of course the rain came on. Not a vicious rain, but one of these steady descents that seem so congenial to the Scot. No one minded it. The captain tied up the wheel and made himself countless libations of *matè*. We donned waterproofs, smoked cigarettes and wondered how anybody could exist in the little huts we saw at long intervals; they looked cheerless in the extreme in their little clearing amid the sodden close crowding forest; invariably with the statue-like figure of a lonely woman standing in the doorway. Hours passed. The sun set pallidly behind what seemed to be great hills inclosing the western end of the lake. Darkness and the rain were increasing. We began to know what Noah must have felt like. And we did not envy him, even with his splendid zoo.

ARRIVAL AT PEULLA.

Just about the time we were resigning ourselves to the remaining 39 days we drew into a jetty. It was now almost completely dark and the rain was falling torrentially. Suddenly there was a flash and, like the transformation scene in a theater, electric lights blazed forth along the path to the hotel whose door stood invitingly open, showing a bright cosy looking interior. This was Peulla, our lodging for the night.

It was a finely staged effect. Indeed there is something very like a stage "set" about Peulla. Its little cluster of red-roofed houses nestling near the stream that falls like a silver cord down the hillside, the sawmill and the cows in the lee of a hedge being milked by a rosy-cheeked girl, are very like Act II; scene, a mountain village, Switzerland. Only one missed the "yodelling". However, the baths, beds and meals are essentially "practicable", and are particularly alluring at the end of the long day's journey.

One woke with the tinkling of a bell calling the workers to their labors, to find that the rain had ceased and the sun was shining amid masses of cumulus clouds. It seemed admirable weather for the next stage of our journey—the ride to Casa Pangué. Saddled horses were awaiting us, our bags were strapped to the back of a mule, and under the tutelage of a taciturn guide we set out. In the crisp air of early morning it was delightful to imagine you were a centaur and start off at a gallop. It hardly felt quite the same, however, when

the guide kept us galloping along forest tracks and over the rocky bed of the Pangué. He would doubtless have galloped us through the swift river itself had it not been that he might have lost a horse. The post station of Casa Pangué is set by the ford. When we rode into the stables there it was only permitted us to fall off our horses, mount the mules that awaited saddled, and begin the long slow climb over the ridge of the cordillera.



ROAD FROM PEULLA TO CASA PANGUE.

"In the crisp air of early morning it was delightful to imagine you were a centaur and start off at a gallop. It hardly felt quite the same, however, when the guide kept us galloping along forest tracks and over the rocky bed of the Pangué."

The promise of the morning had not been fulfilled. The brightness had faded, and as we rose to the higher altitudes we entered a stratum of clouds that limited the vision. This, however, gave us more time to study the idiosyncrasies of the mule. It is a fine animal. My specimen plodded up the rough road with unruffled persistence under an almost continuous flagellation. In time one got a bit tired of it, but apparently I had not been keen enough at my task, for I was the last to reach the frontier, where the remainder of the party had halted, and the leader by some sort of conjuring trick had produced a bottle of wine. The visible symbol of the frontier is a stark, iron post with "Chile" on one side and "Argentine" on the other. The shifting of this post a mile or two either way did not seem worth all the bother and the threat of war aroused some years ago.



A VIEW FROM LAKE FRÍA.

"Fría is the smallest of the chain of lakes and probably the prettiest. It is also the coldest, as it might well be, shut in by steep tree-clad hills and fed by the glaciers of Tronador."

It is a sharp, quick drop to Laguna Fría where, with great delight, we left our mules, partook of the hot coffee that awaited us, and embarked on a rowboat that conveyed us the short distance across the lake.

Fría is the smallest of the chain of lakes, and probably the prettiest. It is also the coldest, as it might well be, shut in by steep tree-clad hills and fed by the glaciers of Tronador. We took the existence of Tronador on trust, for the mist still rolled low over the landscape.

PUERTO BLEST.

Finally, a welcome tramp over about 2 miles of soggy road, ending with a sprint to escape the rain which now began to fall heavily, brought us to the long low inn of Puerto Blest and the end of our journey.

Puerto Blest lies in a little sheltered corner of the stormy Lake Nahuelhuapi, with the huge bulk of the "Tres Hermanos" soaring away, as it were, from its doorstep. The range of vision is limited, and we had plenty of time to gather all the details, for the whole afternoon and evening we enjoyed the spectacle of a mountain storm. Rain fell in torrents, the lightning flashed and thunder went crashing over our heads.

Were we bored? Not a bit of it; for we found that the honey-mooners of the train had arrived a stage before us, and, having apparently got rather satiated with the look of each other's eyes, welcomed a third and fourth for bridge. Then there was our friend the homesick "gaucho." He was a gaucho in his Sunday clothes, but the wide trousers drawn in at the ankles, the broad brimmed sombrero, and especially the long, keen knife stuck in his belt, proclaimed his class. But one wondered what the knife was for, as it was quite out of harmony with his whole bearing. His well shaped almost effeminate face, the calm soft, brown eyes and the low musical voice did not go well with a foot-long knife, nor one's conception of the virile gaucho. But then he was not a real gaucho. Born in one of the southern towns of Chile he had worked for 20 years in the Argentine pampas, married, made a little money, and was now going home. He spoke of his years of exile on the wide monotonous plains, but "Always I said there is no place like Chile." No; there is no place like Chile, or wherever is one's native land when the wanderlust has spent itself and we yearn for our own people. He was going home. We saw him set out, his little bundle of bedding and possessions barely protected from the soaking rain, his wife sheltering under her shawl a little tin of sugar. We waved him goodluck.



FALLS OF LOS CÁNTAROS RIVER, NEAR PUERTO BLEST.

As darkness came down, the wind rose to join the storm which was now at the right pitch for real enjoyment, the lamp being lit, more wood being heaped on the stove, round which we sat toasting our toes and telling ghost stories. When we retired to bed it was to lie listening to the storm growing more intense, and conjure up all the thrills one could from the recollection of tales of mountain inns and lost travelers, of evil looking landlords who would cheerfully cut your throat for your purse, a woman's screams heard during a lull in the storm, and all the other elements of, we admit, tawdry romance. But it was no use. A day in an unaccustomed saddle made it impossible for even the noise of the storm to keep one from sleep.

THE RETURN JOURNEY.

Looking from the window the following morning we were amazed to see a mass of shining gold. It seemed like a fairy tale come true. In reality it was the rays of the newly risen sun aglow on a wet hillside. For the storm had blown itself out during the night and the morning was one of unsullied perfection. The sky was a cool, washed blue, the wet woods were a glorious green, and there was a crisp tang in the air that made life seem a wonderful gift. Under such conditions we made the return trip and had revealed to us a new land. One would like to linger over this journey in retrospect, but as the reader's patience is doubtless as limited as my supply of adjectives I will only endeavor to indicate a few of the panoramas that were still able to excite the senses already saturated in beauty. One of these was the little lake of "Los Cántaros," a cup of blue water held in the hollow of the hills a very short distance from Puerto Blest. When we saw it that morning after the storm, holding an inverted picture of sky and snow-clad mountain in its bowl, we were afraid to speak above a whisper lest we should desecrate this haunt of ancient peace.

Awe held us again as we were rowed across Laguna Frías when, rounding a jutting point, the majestic vision of Tronador swung into view. In the clear air it seemed very near—the great blue-green glaciers that pour in frozen motion down its scarred precipitous flanks, half hidden in the snowdrifts which, deepened by the storm of the night, glistened with an almost uncanny brilliance. So we saw it once again as we crossed the frontier and were descending into Chile. It flashed on us at a twist of the road over the ridge of a wooded hill. Another turn or two and we looked down into the valley of the Pangué and across to "Todos Los Santos," Tronador, Punta Aguda, Osorno, and other peaks whose names I never learned, soaring in superb magnificence high above this green and hospitable land.

You can be sure that we did not bother flogging our mules when such scenery was to be enjoyed. We let them jog on as they pleased and, happily, as they were going home, it pleased them to keep



LOS CÁNTAROS LAKE.

“One of the panoramas that was still able to excite the senses already saturated with beauty was the little lake of Los Cántaros, a cup of blue water held in a hollow of the hills, a very short distance from Puerto Bles.”

moving. But even the road had changed. If it had seemed a rather sullen forest track on our upward journey, it now showed a more charming aspect. It was bordered with an infinite variety of wild flowers of brilliant coloring. Bees and butterflies boomed and flickered in the dappled sunlight. And one imagined that looking down some cool grove of trees we should see the elves at play.

BACK AT PEULLA.

It was late afternoon as we came pricking through the woods that lie near Peulla—"Pricking," at any rate, is what the knights did in the days of chivalry when traveling through the woods in search of distressed damsels to succor. It must have been a fine occupation, especially if the woods were so full of light and shade and cool beauty as these we traversed. We came to Peulla just as the sun was setting, and the electric-light condensed-milk poster was coming to life, the cows going back to the fields after milking, the workers homing, and the evening star rising in the west.

The glorious weather held all next day when we recrossed "Todos los Santos," its waters now the legitimate emerald shade; the panorama of wood and snow-capped mountain having all the hard beauty of a chromo. Osorno, too, as we swung round its base, had just a little of the unreality of unsullied definition. But Lake Llanquihue was hazy with the heat of afternoon, so that it was good to lounge in a shady corner of the deck and dream, as the steamer coasted from jetty to jetty. About these little piers were fair-haired men and buxom, rosy-cheeked women, and children that seemed just a little too clean.

It was delightful, but again one could not help feeling that it was not Chilean. Perhaps it does not try to be. Maybe it is endeavoring to live up to its name of the Chilean Switzerland.

It was, I think, one of the Caroline poets, a rather downhearted one, who asked, "What is beauty? it lasts but a day." Chronologically I suppose it does. But the mental records of beauty experienced are as enduring as our human mechanism. Yet deep as we had steeped ourselves in beauty in these days of lounging round the lakes, there came a time on the homeward journey when the habits of a commercial life began to assert themselves, and one speculated on the future of this district. On a ridge of the cordillera one saw the abandoned workings of a long-deceased company. And there will be in the memory of most the reports of a grandiose scheme for the establishment of a huge iron-smelting plant on one of the estuaries of this lake country, generally supposed to be fathered by the famous firm of Krupp.



LAKE FRÍA, WITH TRONADOR IN THE BACKGROUND.

'Awe held us again as we were rowed across Laguna Fría when, rounding a jutting point, the majestic vision of Tronador swung into view. In the clear air it seemed very near.'

FUTURE PROSPERITY.

It is not in this fashion, however, that progress will be made. It will be by the slow labor of the settler who in solitude and privation will clear the forest and one day sow and reap in the fertile valleys. But where are these settlers to come from? Even in the oldest inhabited parts of Chile there is but a thinly spread population.

I had just reached this point in my speculations when the train drew up at a little country station. The sun was just setting and its rosy, golden haze bathed a little group that stood on an embankment near the line. There was a traveling harvester, a strong, bronzed peasant, with a sickle over his shoulder and in his hand a little bundle tied with a cloth. At his feet sat his wife, suckling her child.

It was nature imitating art, and borrowing from a Walter Crane illustration to the May-day issue of a Socialist paper. But it was also an answer to my speculations. Ultimately it will be these patient, half-articulate people who will tame nature to their will, make these lands produce more than pleasure to the peripatetic tourist, and perhaps feed with the food of their land the folk of other lands. All the same, I am glad to have seen it before it had any implied noble mission.



PERU'S RICH RESOURCES

By CLAYTON SEDGWICK COOPER

IN ECONOMICS as well as in industrial affairs, Peru would seem to be at a point in her centuries of development where she may be able to take the utmost advantage of her almost limitless resources.

During the period of the Inca empire, a great agricultural period, the Indians proved the possibility of land cultivation and cattle raising not only in the narrow valleys of the Sierra region, but also on the high Andean table-lands.

In colonial times, marked by the quest and development of the rich minerals and precious metals of Peru, the country came to be one of the leading mineral nations of the world, both as to output and inherent resources.

Early in the independence period the great national wealth in guano of the Chincha Islands and the nitrates in southern Peru were developed, and when through the war of the Pacific Peru lost much of her guano industry to her creditors and her nitrate provinces to Chile, there arose her present economic era of industrial development and renewed cultivation of her agricultural and mineral riches. It is to these last developments that Peru owes her present status and progress and it is through these that she looks out expectantly upon a promising future.

SUGAR

In connection with Peru's agricultural wealth and development, sugar has been an important product. The introduction of new machinery as well as modern improvements in the cultivation, have marked the last decade until Peru's output of sugar per annum has reached nearly 300,000 tons. While immediately after the war of 1879 sugar exports from Peru amounted to only \$1,355,773, in a recent year Peruvian sugar exported reached the figure of \$40,030,850.

A fitting example of a modern Peruvian sugar mill is that of Cartavio, owned by the Grace interests, an establishment that both in modern machinery equipment and also in general administration compares favorably with any similar plant in other parts of the world. Hacienda Cartavio is an estate of about 30,000 acres, of which 8,500 are devoted to growing sugar cane, the rest being used for other crops and for pasture. It is situated on the seacoast of Peru about twenty-five miles north of Salaverry. The estate is flat, with a slight slope toward the west, and agricultural machinery of all kinds is employed. There are nearly 2,000 horses, mules, and oxen on the place; 975 buildings, consisting of laborers' and employees' houses, warehouses, shops, two schools, a moving picture theater, a church and a hospital.

¹ From *The Grace Log*, March-April, 1922.

Four locomotives, 125 cane cars and 17 miles of portable track are in use. The village contains about 2,500 inhabitants and forms a complete community by itself.

The Central Chicama grinds the cane of Hacienda Cartavio and that of the neighboring estate of Chielin. The grinding continues



Courtesy of The Grace Log.

MAP SHOWING SOME OF THE PRINCIPAL PORTS AND PRODUCTS OF PERU.

throughout the year, except for a short stoppage in March or April. In 1921 additions were made to the plant, consisting of a 15 roll Fulton mill and other new machinery, so that at present the capacity of the factory is 2,500 tons of cane per day.

COTTON.

Another outstanding agricultural product is cotton raised in Piura and Ica on the Peruvian seacoast. While in 1887 the Peruvians exported only about \$300,000 worth of cotton, in a recent year this

figure reached \$33,284,225. The modern cotton mills about Lima and in other sections of the west coast are turning out a product of a quality which betokens much for the future of this Peruvian industry, the cotton from Piura especially having a high reputation in world markets.

The Vitarte cotton mill, as an example, located on the Central Railway of Peru, about 10 miles up the Rimac Valley from Lima, has about 750 looms and 15,000 spindles. There are about 450 operatives. The cotton used is known as "Peruvian smooth," of a longer staple than American "middling."



Courtesy of The Grace Log.

BALES OF COTTON AT THE INCA MILL.

The Inca cotton mill, the largest in Peru, like the Vitarte mill controlled by the Grace interests, is situated on the outskirts of Lima. It has 900 looms and 24,000 spindles. There are 600 operatives.

The total number of cotton looms running in Peru in 1919 was nearly 3,300, and the capital invested reaches approximately \$4,000,000. There are eight cotton mills in Peru equipped largely with modern machines.

AGRICULTURAL PRODUCTS.

The variety of Peru's agricultural resources is revealed not only in the products of an approximately temperate and semi-tropical climate, but in the sunny valleys on the Oriental slope of the Andes are found sugar cane, coffee, cascarrilla, vegetable ivory, rubber forests, rice, wheat, alfalfa, and virtually all of the fruits and products of soil germane to tropical regions.

Rice is also found in the Department of Libertad, and cocoa is raised in the Andean valleys, while vineyards along the coast in Ica and Moquigua yielded in a recent year a million-dollar crop.

The production of rubber developed rapidly in Peru in the years immediately preceding the World War.

In 1887 the production was only 444,000 kilos, while in 1915 the production reached 3,000,000 kilos, or more than eight times the previous output. In spite of the competition in rubber from Java and Sumatra, the Peruvians maintain faith in the future of their rubber zone because of its unlimited resources.



Courtesy of The Grace Log.

DRYING WOOL AT AREQUIPA.

Petroleum is another Peruvian product being exploited in the coast district of Peru, particularly in the northern section where five fields are in operation. In 1903 petroleum production was worth \$415,000; but in 1918 this production was 335,000 tons, valued at \$10,900,150.

PERUVIAN GOLD.

As it was gold that made Peru famous and attracted to her shores the early Spanish adventurers, so to-day this country is rich in this precious metal. Peru occupies the sixth place in the world's gold production and the first place in South America. The most important formations of gold are found upon the eastern slope of the Andes, and it is estimated that one auriferous deposit in this region contains more gold than has ever been found in California. The famous deposits at Aporoma, several miles in length, are estimated to contain gold to the value of \$200,000,000. The traveler in Peru will be told

A COPPER SMELTER IN THE LOFTY
ANDEAN SECTION OF PERU.

The copper industry has come to the front in Peru and has made remarkable progress. In 1903 Peruvian production of copper was only about 18,000,000 pounds, while in 1921 it reached nearly three times this amount, or about 50,000,000 pounds.



Courtesy of The Grace Log.

how these mines were at one time worked by the Incas, and how the Inambari River and its tributaries are veritable gold pockets, and also how the mountain regions of the Sierra proper are rich in quartz lodes. The scale of Peru's richness in this latter mineral is indicated by the fact that in the southern part of the country there is to be found a group of quartz lodes, ten of which, extending across a deep valley, ascend the slopes and traverse a high plateau. The outcrop of these lodes is said to be from 2,000 to 3,000 feet above the lowest level of the valley, while the lodes extend downward to unknown depths. The great difficulty in all of these mines is the lack of sufficient capital to install proper machinery and provide proper transportation.

COPPER INDUSTRY.

The copper industry has come to the front in Peru and is making remarkable progress. In 1903 Peruvian production of copper was only about 18,000,000 pounds, while in 1921 it reached nearly three times this amount, or about 50,000,000 pounds. Americans have particular interest in the copper industry, since over \$30,000,000 have been expended by an American syndicate in the Cerro de Pasco property, which occupies one of the highest and one of the most important mining plants in the world, a railroad running to it up the sides of the Andes. Many collateral improvements have been made and are still being made.

The Cerro de Pasco Copper Corporation was one of the few copper companies to continue operations during the entire year of 1921. This company was also one of the few big producers which actually made money on their operations. The company is building a new \$9,000,000 smelter at Oroya, Peru, 12,000 feet above sea level. This smelter will be able to handle a minimum of 2,500 tons of ore daily.

The following statistics of production are approximate only and may vary from year to year:

Ore, 500,000 tons per year; blister copper, 70,000,000 pounds, containing 6,000,000 ounces of silver and 30,000 ounces of gold; coal, 300,000 tons; coke from coke ovens, 60,000 tons; output of hydro-electric plant, 20,000 horsepower.

The altitude of the corporation's properties ranges from 12,200 feet to 15,000 feet above sea level.

These copper mines usually employ about 200 American workmen, together with 6,000 native Peruvians. Including the families, there is a population of about 25,000 people, forming one of the most interesting communities to be found in South America.

VANADIUM.

Another important mining output of Peru is vanadium, in which Peru holds the first place in the world, for 70 per cent of the world's supply of vanadium comes from the Peruvian Andean section.

The mines of the Vanadium Corporation of America are located at Mina Rogra, Department of Junin, Peru, about 50 miles west of



Courtesy of The Grace Log.

OPEN-OUT WORKINGS AT THE MINES OF THE VANADIUM CORPORATION OF AMERICA AT MINA ROQUA

Cerro de Pasco, at an altitude of about 16,000 feet above sea level on the eastern slope of the main range of the Andes and are the highest known mining operations in the world.

In the past the corporation has been dependent upon llamas for the transportation of the ore from the mine to the railroad, but it has lately, at very great expense, installed a railroad from the mine to Lake Punrun—which, by the way, is the highest navigated lake in the world—thence the ore is conveyed across this lake for a distance of about 10 miles, then by another railroad to Rician, the corporation station on the Cerro de Pasco Railway.

The chief uses of vanadium may be listed as follows: It is used for high-speed tool steels in amounts varying from 1 to 2 per cent, and for machine tools; also extensively in automobile construction of springs, transmission parts, axles, crank shafts, connecting rods, steering knuckles and levers, and ball and roller bearings. It is used for locomotive frames, axles, connecting rods, piston rods, valve parts, and springs; for hammer piston rods, pneumatic tools, metal-cutting saws and edge tools; for crank shafts and line and tail shafts of warships; for torpedo air flasks; airplane engine construction and fittings, and for thin armor for tanks, cars, and trucks. It is also used for machine-gun barrels, rifles, and heavy guns, and in making cast-iron parts of gas and oil engines; and, in short, wherever a steel of high physical properties and of ability to stand great fatigue and heavy duty is required.

It is of interest also to note that bismuth is being found in increasing quantities near Cerro de Pasco, separate from other minerals.

It is significant that in the mining regions of Peru foreigners have the same rights as the natives, and that the taxes are not exorbitant. The native Indian has proved to be a successful miner, being able to live and work advantageously in high altitudes and revealing unusual endurance and skill in mining activities. The labor question is thus for the most part satisfactorily solved.

Other minerals existent in Peru, many of them in large quantity and waiting only proper means of development, are silver, lead, quick-silver, coal, zinc, sulphur, cobalt, and salt.

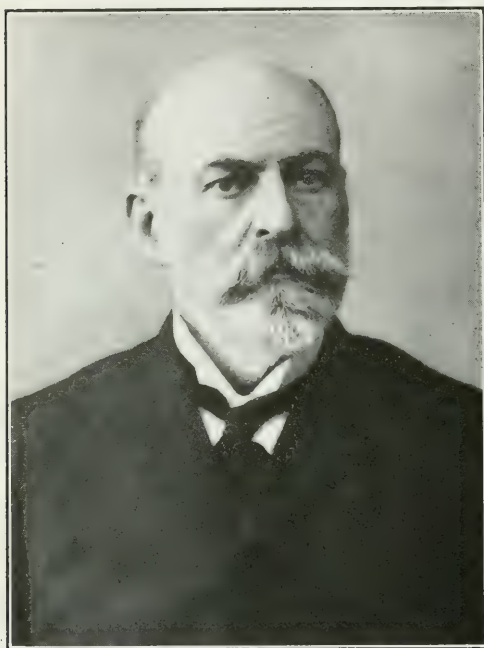
Irrigation in the desert portions of Peru has proved the remarkable fertility of the soil, while the frequent rivers furnish excellent water-power facilities. The railways of Peru, while still inadequate to care for the needs of so great an expanse of country, are well managed and have proved their utility in carrying products to the west coast ports.

Like every other South American country, Peru waits for the larger development of her resources upon proper means of transportation. The country has been likened, with some justice, to a small boy who has money in the bank, but who is unable to get at it because he has no key. Railways and means of transportation in general are the keys particularly needed at present to open to the world Peruvian riches.

DR. JOHN CASPER BRANNER

THE Brazilian press paid a glowing tribute to Dr. J. C. Branner, late president of Stanford University, on the occasion of his death on March 1 of this year.

Dr. Branner was a good friend of Brazil, and as such he is remembered, not only for the great value of his scientific researches performed in that country, but for the constant and sympathetic interest which he took in all things Brazilian.



JOHN CASPER BRANNER.

Dr. Branner's first visit to Brazil took place in 1875, when, together with Orville Derley, Richard Rathbun, Herbert Smith, and other pupils of that great master of geological science, Charles Frederic Hart, they accompanied their distinguished professor on his return to his post as imperial geologist of Brazil at the conclusion of a vacation which he had spent in the United States.

On the death of Dr. Hart in the same year, Dr. Branner was made Director of the Imperial Geological Commission and continued to hold that post during a

long succession of years. At a later period he entered the service of the mining company of São Cyriacao, in Minas, as engineer and interpreter. After some time he withdrew from Brazil, but returned at a later period in the capacity of special botanist, having been sent out by Thomas A. Edison, in search of timber suitable for certain uses in electric apparatus; and at a still later date he represented the Department of Agriculture of the United States.

Returning to the United States in 1883, he was made topographical geologist of the Pennsylvania Survey, from which post he was called to a professorship of geology in the University of Indiana.

In 1891, when Stanford University was founded, he was appointed professor of geology. Sometime later he was appointed vice president, and, at a still later date, president of that institution.

Dr. Branner directed two scientific explorations in Brazil, one under the auspices of Alexander Agassiz in 1899 and the other in 1911 with the aid of Prof. Richard A. L. Phrose.

Dr. Branner's relations with Brazil were very close. He published a volume on the geology of that country, a large number of special memoirs, besides a grammar of the Portuguese language. His writings on geology and physical geology are very numerous. Another important contribution of his is a work on ceramics. He was a corresponding member of the Brazilian Academy of Letters, to which he was elected in 1913 to succeed Count Monsaraz, who in his turn had succeeded Henrik Ibsen.





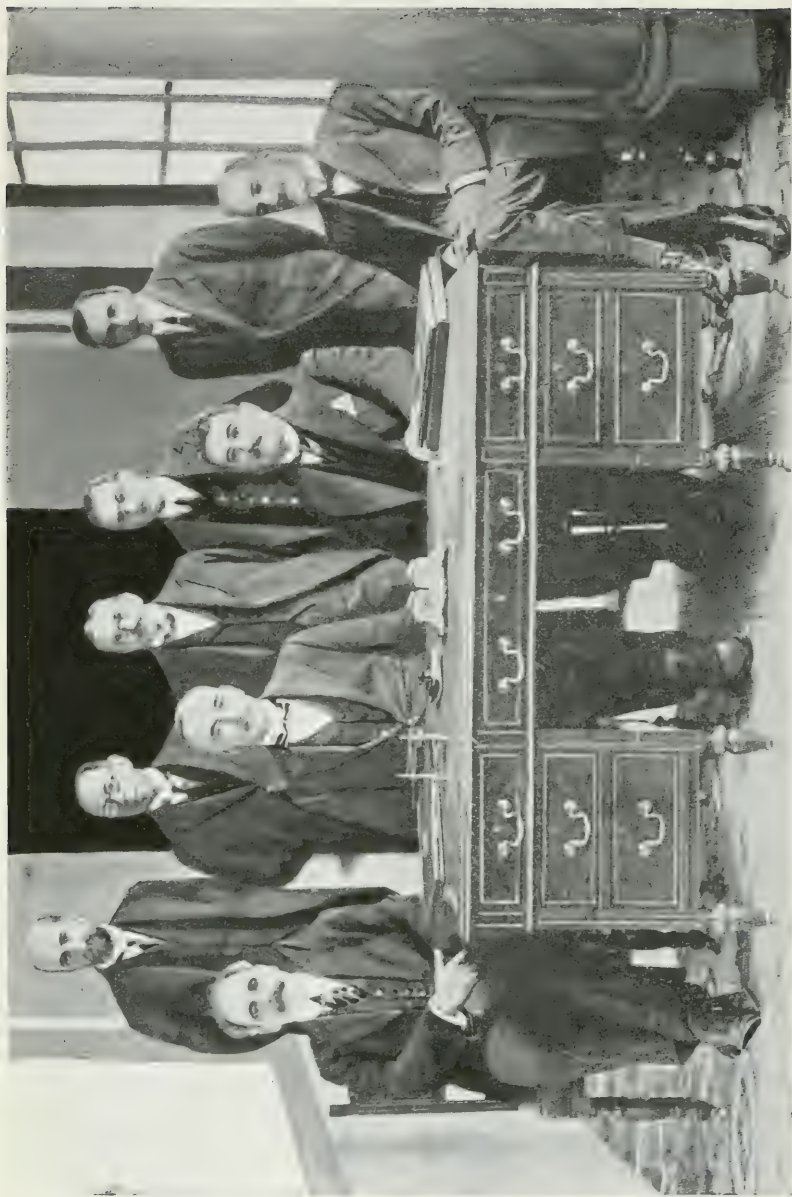
SEÑOR DON FRANCISCO SÁNCHEZ LATOUR, ENVOY EXTRAORDINARY AND MINISTER Plenipotentiary of GUATEMALA TO THE UNITED STATES.

Señor Latour, a native of Quezaltenango, Guatemala, has held numerous important posts in the service of his Government. He was an alderman of the city of Guatemala; assistant director of the Central National Institute for Young Men; National Treasurer of Guatemala; Member of the National Assembly, serving two terms; First Secretary of a Special Mission to Washington in 1907-8; *Chargé d'Affaires ad interim*, and First Secretary of the Legation in Washington from 1911 to 1920; *Chargé d'Affaires* from December, 1921, to April, 1922. He was appointed Envoy Extraordinary and Minister Plenipotentiary to the United States April 18, 1922, and on the following May 23 was received by President Harding.



BREAKING GROUND FOR THE UNITED STATES EXPOSITION BUILDING AT RIO DE JANEIRO, BRAZIL.

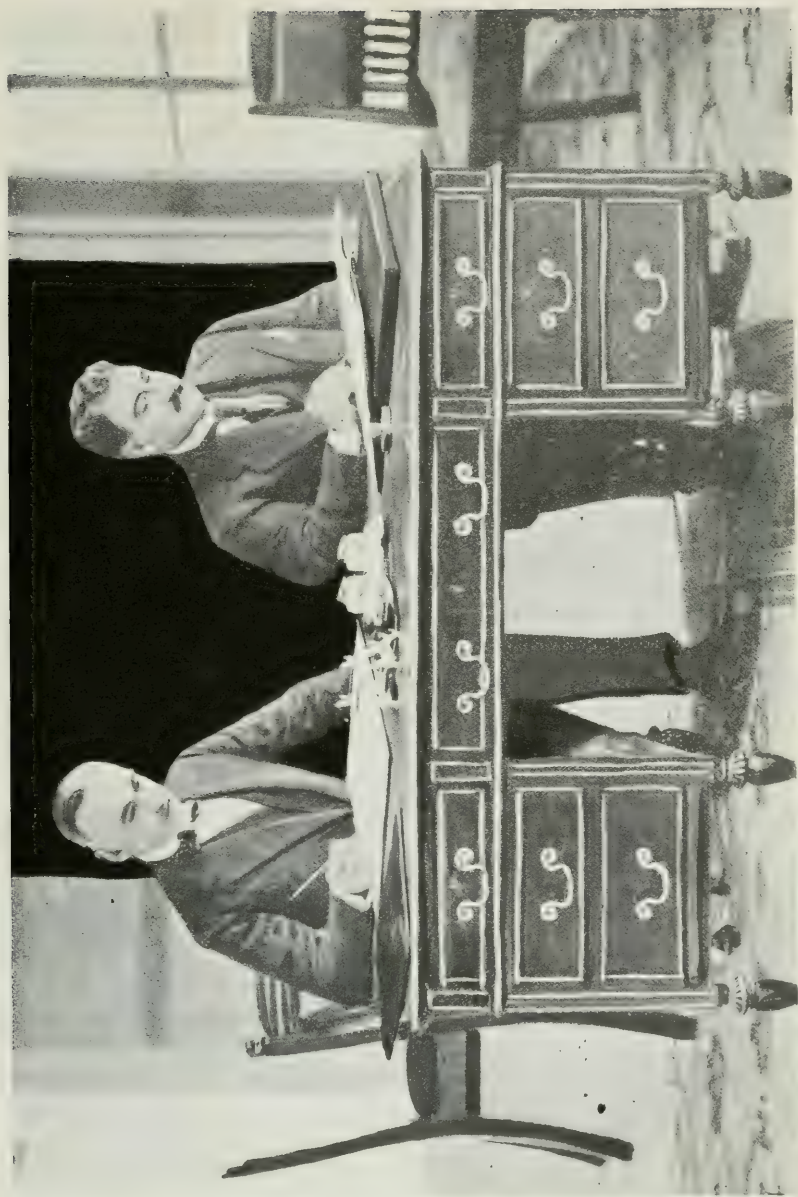
The United States Government appropriated \$100,000,000 for participation in this Centennial Exposition. A site was purchased in the very heart of the city upon which to erect the pavilion which will, at the close of the Exposition, become the permanent United States embassy. *Upper:* A group of prominent Americans who participated in the ground-breaking ceremonies. The gentleman in the center, wearing white trousers, is Mr. Frank L. Packard, the architect. At his right is the United States Ambassador to Brazil, Hon. Edwin V. Morgan. Behind Mr. Morgan and a little to his right is Col. D. C. Collier, the United States Commissioner General to the Exposition. *Lower:* The site of the United States Building is indicated by a white circle. In the foreground and to the left is Castle Hill, which is being removed to make way for the construction of Exposition buildings. The temporary railroad tracks run along what will be the "Avenue of Nations," the chief thoroughfare of the Exposition.



Courtesy of *El Gráfico*, Bogotá, Colombia.

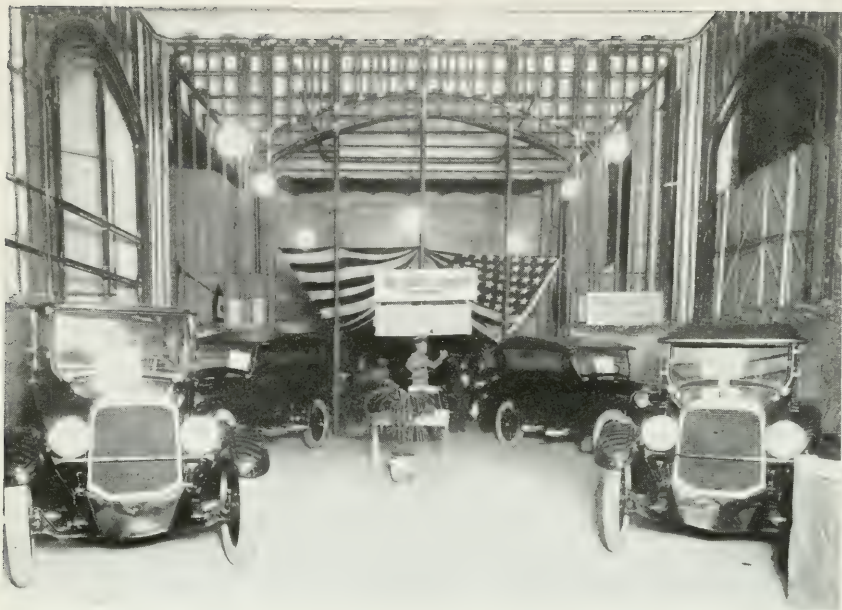
EXCHANGE OF RATIFICATIONS OF THE TREATY BETWEEN COLOMBIA AND THE UNITED STATES, APRIL 6, 1922.

Photograph taken in the Department of Foreign Relations, Bogotá, Colombia. Seated, left to right: Señor Don J. M. González Valencia; Hon. Hoffman Philip, United States Minister to Colombia; Señor Dr. A. J. Uribe, Minister of Foreign Relations; Señor Dr. Constantino Barco. Standing, left to right: Señor Don Carlos Tamiayo, Señor Don Leopoldo Montéjo, Señor Don Antonio Gómez Restrepo, Señor Don Raimundo Rivas, and Señor Don Rafael Herrera.



Courtesy of *El Gráfico*, Bogotá, Colombia.

THE UNITED STATES MINISTER TO COLOMBIA, HON. HOFFMAN PHILIP, AND SEÑOR DR. ANTONIO JOSÉ URIBE,
MINISTER OF FOREIGN RELATIONS, SIGNING THE TREATY.



Courtesy of the American Chamber of Commerce of Mexico.

THE INTERNATIONAL AUTOMOBILE SHOW, MEXICO CITY, APRIL 16-23, 1922.

The exhibition was held under the auspices of the Automotive Division of the American Chamber of Commerce of Mexico, in the National Theater, by special permission from the Mexican Government. Four salons of the building were temporarily finished and decorated, giving approximately twenty thousand square feet of space for displaying automobiles, trucks, tractors, and accessories. Everyone concerned with the exhibition was greatly pleased with the results. During the week 152 automobiles, 5 trucks, and 10 tractors, representing an amount of 770,000 pesos, were sold.

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

CEREALS, BUTTER, AND SHEEPSKINS.—From January 1 to March 30, 1922, inclusive, the following cereals were exported (amounts are given in tons of 2,205 pounds): Wheat, 1,352,257; maize, 441,817; linseed, 195,375; oats, 140,528; flour, 17,985; barley, 2,465; birdseed, 2,598; also butter, 228,566 cases; and sheepskins, 19,635 bales.

The official estimate of areas sown to various grains for this year and the two preceding is shown in the following table:

	Area in hectares.				Area in hectares.		
	1921-22	1920-21	1919-20		1921-22	1920-21	1919-20
Wheat	5,636,000	6,076,100	6,053,000	Oats	852,000	835,000	931,000
Linseed	1,575,000	1,409,850	1,425,200	Maize		3,273,900	

ARGENTINE FOREIGN TRADE, 1920.—According to the report of the General Bureau of Statistics the foreign trade of Argentina for 1920 amounted to 1,979,053,069 gold pesos, or 292,315,517 pesos more than in 1919, an increase of 17.3 per cent. The 1920 imports amounted to 934,967,699 gold pesos against 655,772,294 in 1919, or 42.5 per cent more, and the 1920 exports to 1,044,085,370 gold pesos, an increase of 13,120,112 gold pesos over 1919. The 1920 favorable trade balance was 109,117,671 gold pesos, or 266,075,293 pesos less than that of 1919, a reduction of 70.9 per cent. During 1920 coin to the amount of 143,193,565 gold pesos was imported, against 32,371,469 in 1919.

Great Britain in 1920 received the largest amount of Argentina's exports, taking goods to the value of 279,677,317 gold pesos; the United States was next, receiving Argentine products valued at 154,135,735 gold pesos. These two nations also led the countries furnishing imports, Argentina purchasing from the United States products valued at 310,395,308 gold pesos, and from Great Britain goods to the value of 218,605,483 gold pesos. The customs and port taxes for 1920 amounted to 130,698,258 gold pesos, as against 91,323,235 gold pesos in 1919.

THE PORT OF MAR DEL PLATA. In 1865 a small iron dock was built near the present site of the Club Mar del Plata. To-day 3,700 meters of breakwater inclose the new port. In 1912 work was commenced

by the "Société Nationale des Travaux Publics," which also built the new port of Montevideo. Two large breakwaters form the outer harbor of Mar del Plata. On the south 2,550 meters of the 2,750 planned are already constructed, and the north breakwater has 800 of its 1,050 meters already built. The work is to be completed in another year and a half, 7,000,000 of the 12,000,000 pesos appropriated for the work having been spent. The depth at the docks for ocean steamers is 30 feet. Along the 3,000 meters of the breakwater are two deep-water docks, a large coastwise dock with shipyard, and a large fishing dock. On the north side of the south breakwater in the outer port are to be built the oil and coal docks. The cost of the breakwaters is estimated at 5,000,000 pesos. Last year several thousand passengers used this port, and the projected new railroad lines will make it very important commercially. About 150 fishing smacks go out daily and return to load some 10 tons of fresh fish into cars at the railway siding to be shipped all over the country.

BOLIVIA.

PARCEL POST.—See page 83.

BRAZIL.

BRAZILIAN WOODS.—Nine kinds of Brazilian woods have been tested at the United States Laboratory of Forest Products and Timbers with a view to ascertaining their fitness for use in construction, carpentry, and cabinet-making. From these tests were gleaned the results given below, showing the points of resemblance between the Brazilian product and timbers growing in the United States and other parts of the world. In this list the name of the Brazilian wood is followed by that of the American and other wood to which it is equal in resistance to the saw: Cedro, resistance same as Spanish cedar, capable of very solid finish; embuya, resistance same as European birch, when varnished black resembles walnut; ipê, resistance same as greenheart, requires no varnish to become polished, but if varnished would pass for walnut; jatahy, resistance same as American elm, resembles mahogany, when simply polished without varnish; jequitibá, resistance same as American elm, would pass for mahogany when varnished; marfim (ivory), resistance same as greenheart, but requires colored varnish; peroba, resistance same as walnut, can be used as a substitute for rosewood.

According to the Brazil Ferro Carril, these results would seem to indicate the advisability of instituting a campaign to promote the employment of these woods in the world's markets.

LIGHT AND POWER.—The Companhia Telephonica Rio Grandense, owner of the electric station of Bagé, has just effected the sale of its service to the firm Superville, Barbará Buxton, Guilaym & Co.,

which has a paid up capital of 1,300,000 milreis. The new enterprise will introduce various improvements in the service of illumination and distribution of energy, for which purpose it will have at its disposal an entirely new equipment which has been ordered from Liverpool.

The new installation will be ready by next July. The delivery of the plant by the Companhia Telefonica to the new enterprise took place on the first of April of this year.

HIGHWAY BONDS.—See page 81.

CHILE.

NEW WIRELESS STATIONS.—The Navy has lately opened an important wireless station in Puerto Bories, Ultima Esperanza, in the southernmost part of the Republic. Other stations have been set up in Magellan Territory, Tierra del Fuego, and the Patagonian channel region, and their inauguration, which is shortly to take place, will complete the wireless system uniting even the most remote parts of southern Chile with Punta Arenas and the rest of the country.

CHILEAN FACTORIES IN ECUADOR.—In order to enlarge their sphere of action several Chilean manufacturers have asked the Government of Ecuador to grant them permission to establish in that country several factories and branches, among them a chemical plant and a glass and mirror factory. The Ecuadorian Government will welcome the new enterprises and give them every facility possible.

CHILEAN RAISINS IN THE UNITED STATES.—Recent information published by the United States Department of Agriculture and by commercial sources shows that the large Chilean raisins have gained a good place in the American market, competing with the best varieties from California, Spain, Greece, Turkey, and Australia.

AMERICAN PIANO FACTORY.—The Chilean National Chamber of Commerce states that in order to overcome the obstacles presented by the high rate of exchange, an American piano company has decided to open a branch factory in Chile. Chilean cabinetmakers are to produce the cases for the pianos and also for phonographs and other musical instruments.

TRANSANDINE RAILROAD FROM ANTOFAGASTA TO SALTA, ARGENTINA.—The Minister of Industry and Public Works has ordered the immediate survey of the proposed routes for the railway in question, in order that the best one may be chosen and the work started at once.

CHECKS AND CHECKING ACCOUNTS.—See page 83.

IMPORT AND EXPORT DUTY.—See page 84.

COLOMBIA.

FOREIGN COMMERCE IN 1921.—The exports of the Republic for 1921 amounted to 348,251,357 kilos, valued at 63,042,132 gold pesos,

while the imports for the same period weighed 126,617,996 kilos, and were valued at 33,068,317 gold pesos, thus giving a favorable trade balance of 33,068,317 gold pesos. The hides exported in 1921 weighed 3,654,876 kilos, being valued at 975,851.89 gold pesos, and coffee exports totaled 140,707,992 kilos, or 2,251,327 sacks of 62½ kilos each, valued at 41,945,052.41 gold pesos.

INAUGURATION OF WIRELESS SERVICE.—The Marconi Co. has sent from London the English technical experts who are to open the wireless station of Cúcuta, Medellín, Barranquilla, and the central station at Bogotá. The receiving station at Bogotá is located at the Cerrito, and the sending unit at Chapinera, the two being united by a cable which extends to the central telegraph office. Three young Colombians who have been studying wireless telegraphy in London will shortly return to take charge of the stations which are to be opened.

NITRATE AS FERTILIZER FOR COFFEE.—Agriculturists of the Department of Cundinamarca have become enthusiastic regarding the results obtained by the use of Chilean nitrate as a fertilizer. Coffee, corn, and other crops have responded to it by an increase in both the quantity and quality of the yield.

COSTA RICA.

AGRICULTURAL ADVISORY CENTER.—See page 87.

CUBA.

NEW SUGAR CORPORATION.—The Cuban Dominican Sugar Corporation has been organized under the laws of the State of Maryland, United States, and will take over the properties of the Cuban Dominican Sugar Development Co., two plantations in Cuba and three in the Dominican Republic. The investment represents \$33,000,000, including the purchase price of the property. The new organization controls the Santa Ana Sugar Co. of Cuba, the Compañía Azucarera Dominicana and the Barahona Sugar Co. of the Dominican Republic. The Santa Ana Co., located in Oriente, Cuba, has a capacity of 292,000 sacks and 33,500 acres of cultivated cane fields, 16 miles of railroads, warehouses and equipment. The Compañía Azucarera Dominicana owns the Consuelo and San Isidro Centrals in the Dominican Republic, which have 59,000 acres of cultivated cane lands, 70 miles of railroad with equipment, and a combined production capacity of 343,000 sacks. The Barahona Sugar Co. has 45,000 acres of land with irrigation and railroad systems, and a fine new mill which is expected to turn out 200,000 sacks from this year's crop and in 1923-24 to produce 500,000 sacks. According to calculations, therefore, the Cuban Dominican Sugar Co. will produce annually nearly 1,200,000 sacks.

SUGAR SHIPMENTS AND CROPS.—The first quarter year's sugar shipment from Cuba to the United States totaled 1,459,011 tons, or 448,000 tons more than the previous quarter. On April 30 the 1921-22 sugar crop from 96 plantations amounted to 12,697,761 sacks, or 869,671 sacks more than the crop of 1920-21 on the corresponding date of last year.

HONEY SHIPMENTS.—Honey and beeswax are shipped in considerable quantities from Cuba. Late consignments to the United States contained in one case 45 sacks of beeswax, valued at \$1,800 and weighing 4,419 kilos, and in another, 50 sacks of beeswax, worth \$2,000, weighing 4,910 kilos. Other shipments were: To Spain, 10 tierces of honey, worth \$200 and weighing 2,310 kilos; and to Antwerp and Ghent 100 barrels, containing 5,084 gallons of honey, worth \$3,300 and weighing 25,420 kilos.

PINEAPPLES.—The ferry boats of the Peninsular & Occidental Steamship Co., connecting with the Florida railroad, had carried by May 15 350,000 crates of pineapples at the rate of 35,000 crates a day, and according to calculations during the season will transport in all about 1,000,000 crates of pineapples to the United States.

CANE FREIGHT.—The freight rates on cane were reduced from 75 to 80 per cent from April 1. Special cane trains are furnished without extra charge providing not less than 280 cubic meters are to be carried on each trip.

NEW GERMAN STEAMERS.—The Cuban consul general in Hamburg has informed the Government that the Holland-Amerika Line has two new ships, the *Fritzia* and *Hollandia*, renamed the *Harmonia* and *Holsatia*, to run from Hamburg to Cuba and Mexico. The first ship sailed from Hamburg on this route April 10 and the second, on May 10.

PAPER FACTORY.—The Papelera Cubana, a new paper factory, covering an area of 11,300 square meters, has been opened in Puentes Grandes. The machinery in the new plant consists of engines, cutters, rollers and other equipment of the most modern type.

HABANA-NEW YORK FLIGHT.—The hydroplane *Santa Maria* made the flight from Habana to New York with 9 passengers and a crew of 3 in 17 hours and 35 minutes actual flying time. The hydroplane on arrival in New York was received by commissions of the Army, Navy, Chamber of Aeronautic Commerce, Manufacturers' Association and the Aero Club of America.

RADIO.—The Radio Corporation of Cuba has recently been organized for the sale of radio apparatus. The 100-foot wireless towers on the transmission station of the Cuban Telephone Co. have been completed and will now enable Habana to receive broadcasting from New York, Philadelphia, Pittsburg, Detroit and other cities of the

United States. Great enthusiasm has been aroused in Cuba by the wireless telegraph and telephone.

DOMINICAN REPUBLIC.

SANTO DOMINGO -MONTE CRISTY ROAD.—The sum of \$281,400 has been appropriated for completing the road from the capital north-west across the island to Monte Cristy.

OIL PIPE LINE.—The Santa Fe sugar central at San Pedro de Macorís has been authorized by the Government to lay in that city an underground oil pipe line 2,040 meters in length.

NEW SUGAR CORPORATION.—See page 74.

ECUADOR.

CENTENARY EXPOSITIONS.—In celebration of the centenary of the Battle of Pichincha the Mejía National Institute arranged a national and permanent mineral exposition which was opened on May 24. The Centenary Agricultural Exposition showed many agricultural and machinery exhibits from Chile.

GERMAN STEAMER SERVICE.—The President has authorized the Kosmos (German) Line steamers to stop at Ecuadorian ports as before the war. This line also carried on a coastwise trade between the Provinces of Guayas, Manabí and Esmeraldas, which export coffee, cacao, and tagua (ivory) nuts. Germany used to be the chief buyer of Ecuadorian cacao, which was exported mostly in these ships.

CEMENT FACTORY.—A contract has been signed by the Government with a representative of a cement factory for its establishment in the Province of Guayas.

AMBATO.—The progressive city of Ambato, a popular summer resort, also has commercial and manufacturing activities. Its well-lighted and well-paved streets help to give it an attractive appearance. A considerable amount of new building, including edifices for the Bank of Tungurahua, a city hall, and provincial government building, is under construction. An important factory manufactures native cashmeres and woolen goods.

GUATEMALA.

PORT ALVARADO.—The California-Guatemala Fruit Corporation, proprietors of Los Angeles Plantation on the Pacific coast of the Republic, have been granted a concession to construct the Port of Alvarado with the necessary buildings and lighthouse, paying part of the maintenance cost of the customs guards. This port is made official for 5 years, at the end of which time the buildings and improvements pass into the hands of the Government.

HONDURAS.

COMMUNICATIONS.—Extensive work on communications is being carried on in the Republic. The roads from Tegucigalpa are being built as rapidly as possible. A double launch service is proposed for Yojoa Lake, to run between Pito Solo and Jaral. On the Humaya and Celguapa rivers ferries are to be operated until such time as the bridges can be completed, and in this way carts and automobiles will not be deterred from using the roads. It is expected that in June by the Siguatepeque-Comayagua and Taulabé-Pito Solo roads, the ferry across Yojoa Lake and a section of the Troy road the journey from Tegucigalpa to San Pedro Sula can be made in 24 hours.

The Carreterra del Sur or Southern Highway, according to an official report, now shows a monthly traffic of 350 tons, being used by auto trucks as well as carts. The Olancho road has been repaired between Tegucigalpa and San Antonio de Leche. Since June 30, 1920, a 10 kilometer stretch has been built between Agua Caliente and Río Choluteca, and three masonry bridges constructed at Las Lajas, Jocomico and Jucurara.

TELEPHONE.—The telephone line from Potrillos to San Pedro Sula is now in operation with connections in all the way-stations along the railroad between the two points. Later this line is to be extended to Yojoa Lake, Siguatepeque and Comayagua.

MEXICO.

NEW RAILROADS.—The construction of the railroad from Huatabampo across the fertile Yaqui Valley to the port of Yávaros, in the State of Sonora, will shortly be commenced. The branch line from San Blas to Tepic, which will unite the States of Sonora and Sinaloa with the rest of the Republic, is already under construction; its approximate cost is estimated at 15,000,000 gold pesos.

TRAVELING MEXICAN EXPOSITION.—The Department of Industry and Commerce has organized a traveling exposition of Mexican products which will be sent in a special train of twelve cars through the United States. Chambers of commerce and business associations gave enthusiastic approval to the idea, and are cooperating to insure the greatest success possible for the exposition.

IRRIGATION OF THE MAPIMÍ DESERT.—The Department of Agriculture and Promotion has arranged to have preliminary surveys for the Mapimí Desert irrigation project begun at once. According to present calculations the work will cost several million pesos, and will provide water for irrigating 400,000 hectares of land now unproductive, which with irrigation can support 150,000 families. Surveys for the same purpose are also to be made in the northern part of

Lower California, especially around San Quintín Valley and Magdalena Bay, where immense tracts of first-class land could be made available for cotton raising.

INEXPENSIVE HOUSES.—In Mexico City a large company, whose capital is exclusively Mexican, has been organized to build wooden houses similar to those of the United States. It is hoped that by means of this form of construction, hitherto little used in Mexico, the cost of rent can be considerably lowered, as at present the rent problem in the capital is serious.

ARGENTINE CHAMBER OF COMMERCE.—An Argentine Chamber of Commerce in Mexico has recently been organized, its offices at present being in the consulate general of Argentina in Mexico City.

NICARAGUA.

KUKALAYA RAILROAD.—A concession has been granted by the Government to build a standard gauge railroad from the Atlantic coast or from a navigable point on the Kukalaya River at least 60 miles to the Rosita mine or other known mines. An extension may be built by application to the Government, providing it leads to some city on the seaboard or in the interior. If the line terminates at the Río Kukalaya the concessionary will be obliged to dredge the river and Wounta Lake to open navigation up to the railway terminal.

PETROLEUM CONCESSIONS.—Two petroleum concessions have recently been granted. One is to prospect for oil or natural gases in the departments of Bluefields, Chontales, and Nueva Segovia, while the second concessionary is allowed to prospect anywhere in the Republic. Exploration in both cases may last five years. The original guarantee in the first case is \$10,000, and in the second \$50,000. Privileges are given and conditions laid down for exploitation. The full texts of these concessions may be found in the *Gaceta Oficial* of Nicaragua for February 22, 1922.

SAN JUAN DEL NORTE.—This city, located on the Caribbean Sea and the left bank of the San Juan River, has been declared a free port, the customhouse being transferred to the town of Castillo, located on the right bank of the San Juan River.

COLORED CLAY.—The samples of colored clay sent to Los Angeles, Calif., in response to the request of the Nicaraguan consul in that city, have received very favorable attention. American manufacturers of china and tiles are desirous of knowing the extent of the clay deposits and the cost of transport per ton from Corinto to the United States.

BABILONIA GOLD MINE.—New veins of gold have been discovered in the Babilonia mine at Chontales which are said to be richer than those now being worked. The force of 50 workmen, it is reported, is to be very largely increased.

PANAMA.

ROADS.—The Panama Construction Co. expects soon to complete all the grading on the 50 kilometers authorized in the sector which includes the gravel road from Port Chitré to Chitré and the Mensabé-Las Tablas project. It is hoped that all bridges, culverts and other accessories, with the exception of the Guararé bridge, which needs structural steel from the United States, will be finished by July 30. The company has been employing about 1,700 men and building 4 kilometers of road a month.

The Colón-Catavá Road has been surveyed by engineers of the Municipal Engineering Division from the town of Catavá to the end of the road to France Field. The road from France Field to Catavá will cross Canal Zone territory for 4 miles and 1 mile of Panaman territory from the boundary of the Zone to the town of Catavá. The estimated cost of the road is \$80,000, of which it is expected Panama will pay from \$12,000 to \$15,000. If this road is built it will open to Colón a region of *sábanas* or rolling grasslands where the inhabitants of Colón may have their country homes.

ANTÓN AQUEDUCT.—The town of Antón in Cocle Province is to have an aqueduct, and it is hoped also electric light. This town is the center of an important stock-raising country whose stockmen are buying bulls of good breeds to improve the local cattle. The roads being built out in that direction from the port of Aguadulce are progressing, one having reached San Carlos and another arriving at Río La Estancia, which is close to Antón.

PARAGUAY.

REDUCTION OF CUSTOMS DUTIES.—The present budget law permits the President to reduce 50 per cent the import duties on merchandise consigned to ports and works along the Alto Paraná. This has been done to permit enterprises in the Alto Paraná region to import merchandise for common use and consumption and to avoid smuggling.

WHEAT AND FLAX IN CABALLERO.—An Argentine provincial delegate has purchased 4 leagues of land in the department of Caballero, Paraguay, for experiments in raising wheat and linseed. He will send 10 families to begin work on the land and will send more later as cultivation progresses.

SAMPLE GRAINS.—In March a grain exhibition was held in one of the principal stores in Asunción. There were fine samples of wheat, linseed, oats and rye raised as experiments by German colonists in Colonia Cambyreta on the Alto Paraná. The quality of the grain exhibited showed what could be done if these cereals were cultivated scientifically all over the country.

NEW STEAMER LINE.—The agent of the Royal Dutch Lloyd announced that the steamers *Silvia* and *Zeelandia* had been put into the Europe-River Plate route. These vessels were constructed with all conveniences for passenger service.

MARBLE QUARRIES.—In the spring, exploitation of the Ita Pucú-mi marble quarries was begun by a well-known Paraguayan business man. These are said to be among the richest marble quarries in the world and promise very satisfactory results.

SALVADOR.

STATISTICS.—The following figures furnished by the Bureau of Statistics of Salvador show the development of the country: Area, 34,126 square kilometers; population, 1,501,000; deaths per thousand, 20.6; births per thousand, 36.5; and marriages per thousand, 2.7. The country is divided into 14 departments or provinces and has 3 ports on the Pacific: Acajutla, La Libertad, and La Unión. The currency is based on the gold "colon", worth 50 cents American currency. Exports are coffee, gold, silver, balsam, rubber, henequen, cigars, shoes, and other products.

The country has 400 kilometers of railroad, 3,867 kilometers of telegraphs, 2,204 kilometers of telephone lines, and 11,600 kilometers of highways and roads.

The foreign trade amounts to 63,158,000 colones, of which 57 per cent represents the exports and 43 per cent the imports. The Government tax per head amounts to 9.74 colones and the expenditures are 9.57 colones.

There are 871 schools and 1,478 teachers. San Salvador is now connected by rail with Acajutla and La Unión and with La Libertad by automobile service. Picturesque scenery for tourists is to be found at the Lakes of Coatepeque and Ilopango, the active volcano of San Salvador, and the Parque de la Montaña in Cojutepeque.

POSTAL MONEY ORDERS TO GERMANY.—The Salvadorean Post Office Department announces the resumption of postal money order service between Salvador and Germany, which was discontinued during the war. Money orders are to be sent in American gold only, in both offices.

URUGUAY.

COOPERATION IN ROAD CONSTRUCTION.—The Minister of Public Works announced at recent meeting of the National Council of Administration that the President and the Minister of War had offered his department the services of 1,200 soldiers, whose work will be of great assistance in completing the program of highway construction.

COMMERCIAL GUIDE.—The Bureau of Foreign Commerce has been instructed to prepare for the use of Uruguayan agents in foreign

countries a commercial guide, containing full information regarding the business houses of the Republic.

VENEZUELA.

EXPORTS AND IMPORTS.—The total value of Venezuelan exports for the period from January 1, 1921, to July 31, 1921, amounted to 78,467,070.49 bolivars, while the value of imports for the same period was 57,711,802.16 bolivars, giving a favorable balance of 20,755,268.33 bolivars. Gold coin is not included in the value of imports, which does, however, cover parcel post as well as other shipments.

UNION HIGHWAY.—In the middle of March the Union highway, uniting the roads passing through Bellavista and El Milagro, in the Department of Zulia, was opened to traffic.

PAVING IN MARACAY.—Concrete pavements are to be laid in the main streets of the progressive city of Maracay, State of Aragua.



BRAZIL.

HIGHWAY BONDS.—By decree of March 29, 1922, the Minister of Finance was authorized to issue bonds of the internal public debt to the amount of 3,975,000 milreis in order to meet the expenses of the construction of roads in charge of the Emprexa Constructora Rio Grande do Sul.

COSTA RICA.

CUSTOMS RECEIPTS.—The total customs receipts in colones for the 9 months from April to December, 1921, inclusive, were: San José, 2,668,408.67; Limón, 1,678,139.05; Puntarenas, 708,670.63; and Sixaola, 230,002.23, making a total of 5,285,220.58 colones.

CUBA.

FOREIGN DEBTS.—The Secretary of the Treasury on May 10 sent drafts to the United States to cover the interest and amortization of the Federal foreign debt, \$80,000 being sent to Speyer & Co. for interest on the \$35,000,000 loan, and \$28,500 for the amortization of the loan of \$10,000,000, besides \$39,150 for the interest due thereon.

DOMINICAN REPUBLIC.

LOAN.—A tax-exempt loan for \$6,700,000 at $5\frac{1}{2}$ per cent has been arranged with United States bankers. The loan is dated March 1, 1922, and is due March 1, 1942, at 101. The entire issue is to be retired by maturity, beginning March 1, 1931, with at least one-twelfth of the issue each year. The bonds were offered at $94\frac{1}{2}$. The proceeds are to be used to pay the 1921 loan of \$2,500,000, for internal indebtedness, highways, and other purposes.

ECUADOR.

LOAN.—The Bank of Ecuador has loaned to the Government 1,000,000 sucres at 7 per cent annual interest. Amortization will be made with 50 per cent of the export duties collected at Guayaquil.

PERU.

RESERVE BANK OF PERU.—The Reserve Bank of Peru, to which attention will be given in detail in another number of the BULLETIN, was established by law No. 4500 of March 9, 1922. It is modeled on the reserve bank system of the United States. On March 22 the subscription list for shares was opened both to banks and to individuals, and on April 3 the board of directors was declared duly constituted, as follows: President, Dr. Eulogio I. Romero; vice-president, Sr. Eulogio Fernandini; directors, Mr. W. W. Cumberland, Dr. Carlos M. Espinoza, Sr. Juan Francisco Raffo, Sr. Genaro Castro Iglesias, Dr. Ismael de Idiáquez, Sr. Walter Justus, and Sr. Pedro Larrañaga, who will act as manager for the time being. The first meeting of the new board was held April 5.

URUGUAY.

BUDGET.—The term of the budget of expenditures for last year has again been extended so that it will remain in force until June 30, 1922.





LEGISLATION

ARGENTINA.

NEW PENAL CODE.—Through the courtesy of the Argentine Embassy, the BULLETIN is informed that the new penal code of Argentina went into effect on April 29. No copy of the code has yet been received, but the advices are that fundamental changes in the law respecting dueling, fraudulent operations in business, industry, and banking, adulteration of foods, and quack nostrums have been enacted. Capital punishment and imprisonment at hard labor are abolished. The code is retroactive to the extent that criminal prosecutions already begun are subjected to the new provisions. It is hoped soon to give further details.

BOLIVIA.

PARCEL POST.—On March 28, 1922, the Government issued a decree regulating the receipt and despatch of parcel post packages, in order to prevent the pilferage of the articles contained therein. One of the provisions of the decree says that international mail pouches shall be taken immediately to the proper section of the customhouse, where they are to be opened in the presence of the customhouse and post office officials or of the inspector, and a list made and verified.

BRAZIL.

PORTS, RIVERS, AND CANALS.—Dr. Epitacio Pessoa, President of the Republic, has issued a decree approving the regulations of the Federal Superintendence of Ports, Rivers, and Canals. According to this decree, the Federal Superintendence of Ports, Rivers, and Canals will be directly subordinate to the Department of Public Ways and Communications and will be in charge of studying the requirements for ports and interior navigation, as well as the construction of improvements.

CHILE.

CHECKS AND CHECKING ACCOUNTS.—Law No. 3845 of February 8, 1922, regarding checks and checking accounts, went into effect March 24. As summarized in the United States COMMERCE REPORTS

it contains important provisions which safeguard the cashing of lost or stolen checks, and makes it a criminal offense to pass a check on a bank in which the drawer has no funds. If the words "or order" and "or bearer" are erased, the check may be paid only to the payee in person. If the words "for me" are added, it is indicated that the payee is acting only as messenger. After a check is crossed by two parallel lines, it can not be cashed, but will be accepted only for collection or deposit from some person having a bank account; such a check may, however, be indorsed from one person to another.

IMPORT AND EXPORT DUTY.—Law No. 3852 of 1922, now in force, imposes a duty of 10 centavos on each metric quintal of gross weight or fraction thereof of imports or exports. Upon the presentation of documents at the custom house collection will be made in revenue stamps, or in Chilean currency if the amount is over 50 pesos. Merchandise carried in coastwise trade is not subject to the provisions of the law.

COSTA RICA.

RENT LAW.—Congress passed a rent law signed by the President on March 25 which prevents owners of houses from evicting tenants without one year's notice, providing the rents agreed upon in 1920 have been paid regularly. It states also that persons who build houses which with land have a value of 10,000 pesos, within two years after the passage of this law, are entitled to the remission of all customs duties on imported building materials and 50 per cent of the freights in force in February, 1921. Real property coming under the provisions of this act is exempt from Federal land taxes and municipal building taxes for five years.

ECUADOR.

CENSUS OF CHINESE.—The President ordered a new census of Chinese throughout the Republic, each provincial governor to secure through subordinate officials data as to the Chinese in each township. In addition to the census of names a personal description and finger prints will be recorded, together with particulars of the person's family, business, or occupation. This decree became effective March 30.

GUATEMALA.

NARCOTICS.—The Guatemalteco (official gazette) of March 29, publishes the decree issued in accordance with The Hague convention of January 23, 1912, and ratified by Guatemala May 23, 1913, to regulate the trade in opium, morphine, heroin, cocaine, and related products. This decree forbids the importation, purchase, sale, preparation, use or possession of opium for smoking. Article 2 forbids

the giving possession, renting or loaning of any place to be used as an opium smokers' den. Article 3 creates the office of inspection of opium traffic as a branch of the superior council of health. Article 4 states that only for medical, pharmaceutical or chemical uses, and by authorization of the office of inspection of opium traffic, may opium and cocaine be imported.

Other articles of the decree give the measures to be taken to import such drugs, and the condition to be fulfilled by drug stores issuing narcotics on prescription.

HONDURAS.

FISH AND FOREST PRESERVATION.—The governor of the department of Cortés, through the newspapers, has issued a reminder of the fish preservation law and the forestry regulations preventing the dynamiting and poisoning of streams for fishing, and the felling of timber near springs, streams or rivers.

NICARAGUA.

TONNAGE AND LIGHTHOUSE TAXES.—These taxes have been changed. Ships bringing imports or calling for exports are now to pay 8 centavos of a cordoba per ton, net tonnage, half of which is for tonnage, and half for lighthouses. Vessels with a net tonnage in excess of 1,500 tons will pay a maximum tonnage and lighthouse tax on 1,500 tons. Steamers and sailing vessels entering and leaving the port without trade operations are required to pay only 2 centavos per ton lighthouse tax. War vessels or national ships are exempt from tonnage and lighthouse taxes. Steamers or sailing vessels calling at a second Nicaraguan port will then pay only 25 per cent of the taxes. Vessels of other Central American countries will be exempt from these taxes if like privileges are accorded by them to Nicaraguan vessels.

URUGUAY.

INTERPRETATION OF REST LAW.—Under date of September 30, 1921, the National Council of Administration decreed that in relation to the law of obligatory weekly rest women servants and chambermaids in hotels and similar establishments should be considered in the category of domestic servants, provided their duties were of similar nature to those performed in homes.

INTERNATIONAL TREATIES

PERU-URUGUAY.

ARBITRATION TREATY.—The treaty of general obligatory arbitration between Peru and Uruguay, signed July 18, 1917, ratifications of which were exchanged in Lima February 15, 1922, was promulgated in Uruguay by the president on March 7, 1922. (*Diario Oficial, Uruguay, March 11, 1922.*)

PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

UNIVERSITY OF LA PLATA.—At the opening exercises of the University of La Plata the president gave a résumé of last year's work, mentioning that Professor Hastman, in the course of his astronomical observations, had discovered a new planet. This year the law school is to have four seminars in which practical studies will be carried on concerning the application of present-day law to administrative, judicial and legislative work. The agricultural, veterinary, physics, mathematics, and chemistry courses have new laboratories, experiment stations, and other additional equipment. A home for students, called the "Casa del Estudiante," is to be opened as an important innovation.

NEW SCHOOLS.—The National Council of Education, in accordance with its policy of using surplus funds from school budgets for new schools, has authorized the expenditure of 3,700,000 pesos for primary schools in localities where they are needed.

BOLIVIA.

WOMEN GRADUATES.—The university authorities recently granted the degree of bachelor in sciences and letters to a group of young women, one of whom has entered the law school.

BRAZIL.

MILITARY SCHOOLS.—By presidential decree of March 27, 1922, the military schools of Brazil receive new regulations. These schools

are four, and situated respectively in Rio de Janeiro, Porto Alegre, Barbacena, and Fortaleza. The courses of study in these schools will cover seven years, with the following distribution of subjects:

First year: Portuguese, French, arithmetic, geography, gymnastics, swimming, and general notions of military instruction.

Second year: Portuguese, French, arithmetic, geography, gymnastics, swimming, and general notions of military instruction.

Third year: Portuguese, French, algebra, geography, gymnastics, and infantry drill.

Fourth year: Portuguese, free-hand drawing, algebra, general history, gymnastics, and infantry drill.

Fifth year: English or German, geometrical drawing and its applications, preliminary plane geometry, plane trigonometry, general history, fencing, and infantry drill.

Sixth year: English or German, projective drawing, preliminary solid geometry, corography of Brazil, physics, fencing, riding, infantry drill, and target practice.

Seventh year: Natural history, projective drawing, surveying and land legislation, history of Brazil, chemistry, fencing, riding, infantry drill, and target practice.

The study of music is optional in any year, with the exception that it is obligatory for pupils belonging to the school band.

The teaching is to be given in such a way as to avoid excess of theory, useless explanations, and premature generalities, it being the duty of each teacher to plan his work so that the pupil may advance as far as possible in accordance with the natural operation of the human mind, that is, from the concrete to the abstract.

CHILE.

NEW UNIVERSITY BUILDING.—The new edifice for the School of Engineering and Architecture in Santiago has been formally opened. The equipment and laboratories are modern throughout, the department of applied mechanics being considered especially fine.

CHILEAN ELECTRICIANS IN THE UNITED STATES.—Several graduates of the Santiago Vocational School have gone to the United States under contract with the Westinghouse Electric Company, to do advanced work in the shops of that firm and later return to Chile as electricians in connection with the Westinghouse contract for the electrification of the railroad between Santiago and Valparaíso.

MEXICAN CADETS.—Eight Mexican cadets holding scholarships from their government have entered the Military School of Chile to complete their studies, a privilege granted by the Chilean Government at the request of Mexico.

COSTA RICA.

AGRICULTURAL ADVISORY CENTER.—The Normal School of Costa Rica, desiring to aid agriculturists, has opened an agricultural advisory center in Heredia under Prof. Juan José Carazo. The

filling out of a form request to the Agricultural Service brings technical agriculturists to the aid of any planter.

SUBPRIMARY SCHOOLS.—Escuelas maternas or subprimary schools are to be established as part of the national primary education to take children from kindergarten age up to 8 years, which is determined as the age for beginning the regular school work. The Montessori methods will be used in these subprimary schools, which will be under the direction of three teachers who studied subprimary teaching in Europe.

FREE COOKING AND SEWING CLASSES.—The Colegio de Señoritas offers a free cooking class, the only charge being a registration fee of two colones. Another class for women is the course in sewing which the Juan Rafael Mora school has included in its night sessions.

DOMINICAN REPUBLIC.

SCHOOL DAY.—School day was observed in Monte Cristy by an assembly of teachers, pupils and visitors. After several addresses, the boys gave an exhibition of gymnastics.

MEXICO.

SCHOLARSHIPS IN FOREIGN COUNTRIES.—In accordance with its program of promoting an intellectual interchange with foreign countries, the Department of Public Education is sending the most gifted university students abroad for further study. Scholarship students are now found in the following countries: United States, 51; England, 9; Italy, 5; Switzerland, 3; Austria, 1; Germany, 19; Belgium, 2; Spain, 2; France, 4; and Honduras, 1. Among the subjects to which these young Mexicans are devoting their time are engineering in its different branches, chemistry, mineralogy, journalism, painting, singing, piano, and violin.

The President of the Republic has arranged that a number of watchmakers, jewelers, and engravers shall also go abroad to perfect themselves in the knowledge of their trade and thus on their return help to promote national industry.

BOOKKEEPING FOR FEDERAL EMPLOYEES.—Free courses in bookkeeping, open to 2,000 Federal employees, are being given daily in the Advanced School of Commerce in Mexico City, under the auspices of the Department of Public Education. These courses serve the double purpose of benefiting both the employees and the Government service.

DISTINCTION CONFERRED ON BRAZILIAN PROFESSOR.—The National University of Mexico has conferred a doctor's degree, *honoris causa*, on Senhor Manoel Alvaro de Sousa Sa Vianna, professor of international law in the University of Rio de Janeiro. This honor is given,

states the accompanying document, because of the distinguished qualities of the well-known Brazilian juriconsult, and for the valuable services which he has rendered to humanity by advancing the principles of international justice, and to Latin America by cooperating in the unification and fellowship of the race.

GEORGETOWN UNIVERSITY STUDENTS AND UNIVERSITY OF MEXICO SUMMER SCHOOL.—Accompanied by Dean MacElwee, a party of 50 young men who have been studying at the school of foreign service of Georgetown University left New York by boat the latter part of June for Mexico. Many of the number are ex-service men who are taking the course under arrangement with the Veterans' Bureau. After spending six weeks at the summer session of the University of Mexico in Mexico City, the goal for many students of Spanish this summer, the students will visit other parts of Mexico, returning to the United States about September 20. Mexican officials resident in Washington and Dr. Guillermo Sherwell of the Inter-American High Commission have aided greatly in making the plans for a summer which will be most profitable to the fortunate members of the party.

PARAGUAY.

HAND WEAVING.—Most of the Asunción schools and a number of the rural schools are teaching hand weaving, which had become almost a lost art. In fact, there was only one woman in the whole country who knew all the directions for weaving the famous poncho of *sesenta listas*, a special national pattern.

TEACHERS' CONFERENCES.—In March the 1922 teachers' conferences were opened in Asunción for the discussion of school work and methods.

STUDENT REGISTRATION IN PRIMARY SCHOOLS.—On March 31, 1922, there were 4,308 pupils registered in the primary schools of Asunción, not including those in Trinidad, Lambaré, Loma Pytá, nor in private schools. Of this number 549 were registered in the night schools. The registration of 1922 was greater by 1,103 pupils than that of 1921.

MUSIC ACADEMY.—The directors of the Paraguayan Institute have approved the organization plan for a branch in Villarrica under Prof. Mauricio Lefranck. Registration, classes, examinations, and other matters will be covered by the regulations of the parent institution.

PERU.

NATIONAL SCHOOL OF AGRICULTURE AND VETERINARY SCIENCE.—On April 4 the aforementioned institution in Lima began its twenty-first year. When it opened in 1902 it had 6 students, and of the 7 instructors, 5 were Belgian and 2 Peruvian; now the registration is 90

and the instructors number 24, of whom 19 are Peruvians, including many former pupils of the school. One thousand four hundred and ninety-four students have been in attendance, 112 completing the full course.

The work of the school has not been limited to instruction only, but has included experimental and consultation service and the formation of a secondary school of agriculture. Through the influence of the National School the yield of sugar has been increased 28.5 per cent by improvements in cultivation and manufacture; plant and animal diseases have been combatted, over 227,600 doses of serum having been distributed to stock-raisers for use in their herds; and practical demonstrations have been given to agriculturists.

SALVADOR.

SANTA ANA SCHOOLS.—The municipality of Santa Ana has authorized the Mayor to build school buildings and repair those existing, where necessary, with funds from the 6,000 colones appropriated in the budget for schools. A night school for adults was established during the past year in the canton of Santa Isabel Primavera. Santa Ana has established a drawing academy for the art students of its city in the Cabildo (town hall).

REFORM SCHOOL.—The Reform School for Minors established on the Government owned estate, La Ceiba, by Father Brunetti, according to government contract, is now open. All minors sentenced for crimes are sent to this school, where in addition to a regular academic course, they are given training in arts and trades, and other practical subjects.

URUGUAY.

EVENING VOCATIONAL SCHOOLS.—The courses of the Montevideo evening vocational schools for women have been rearranged this year so that they will have an industrial rather than a commercial tendency. The following subjects will be offered: Drawing (three courses), modelling, wood carving, type setting, linotype operating, machine embroidery, leather work, upholstery, watch repairing, jewelry, and other subjects. A year's commercial course, with industrial applications, will be given, as well as a course in hygiene and care of children.

In the suburbs of Montevideo two new evening schools for men have been opened. The one in Peñarol is especially for the workmen and apprentices of the railway shops located there, although others are eligible for entrance. The second school is situated in Villa de la Unión.

ORAL HYGIENE.—Fifty thousand copies of a practical treatise on oral hygiene, written for the National Council of Primary and Nor-

mal Instruction by Dr. Servando Latorre F., have been ordered printed by the Council for distribution among teachers, normal school students, and pupils in the upper grades of the public schools.

TEACHERS' LIBRARY.—As an outgrowth of the idea originally propounded in 1876 by Dr. José Pedro Varela, but which was not put into execution until 1906, there is to-day in Montevideo a library for teachers and children containing more than 20,000 volumes. Magazines devoted to pedagogy, psychology, sociology, and other related subjects, to the number of 154, are also at the service of patrons of the library.

VISITING TEACHERS.—The "Anales de Instrucción Primaria" reports as one of the successful initiatives of last year the visit made to the Montevideo schools by a group of 37 teachers from Maldonado. The time of the trip was planned so that the visitors were able to see the schools in operation. The vocational schools particularly attracted their attention. Several lectures of pedagogical and cultural interest were given especially for the visiting teachers. The director of instruction, who arranged the excursion, was greatly pleased with its successful outcome, and plans others from different parts of the Republic.

VENEZUELA.

TEACHER'S FIFTIETH ANNIVERSARY.—On April 27 last Dr. Francisco A. Rísquez, physician and professor in the School of Medicine of Caracas, celebrated the fiftieth anniversary of his entrance into the teaching profession.



ARGENTINA.

LATIN AMERICAN LEAGUE FOR WOMEN'S DEFENSE.—This organization recently held a meeting of provincial and territorial delegates with the national organization committee in Buenos Aires. The plans of the organization are to be worked out in later meetings.

ANTITUBERCULOSIS DISPENSARY.—A National Antituberculosis Dispensary has been established in Santa Fe. The opening exercises were attended by the governor of the Province, public officials, physicians, and representatives of the press.

SALVATION ARMY MATERNITY HOSPITAL.—On April 4 the Salvation Army opened a maternity hospital in Buenos Aires. The South American division of the Salvation Army includes Argentina, Uruguay, Paraguay, Chile, Peru, and Bolivia.

BRAZIL.

PUBLIC HEALTH NURSING SCHOOL.—The Brazilian American states that the Public Health Nursing School for women has been reorganized and opened in April at the São Francisco de Assis hospital in connection with the Rockefeller commission in the National Public Health Department. Applicants are required to pass an intelligence test for admission to the course, which has a length of 2 years and 4 months. Local members of the medical profession regard the plans very favorably. Under the director, Mrs. Luisa Peninger, there will be a head nurse and ten other American nurses. Graduates of the school will be prepared for both hospital and private work.

CHILE.

"PATRONATO NACIONAL DE LA INFANCIA."—During the year closed in April the aforementioned child welfare society, familiar to BULLETIN readers, continued its valuable work for mothers and children. In the mothers' shelter and the milk stations, 7,812 children were cared for, the mortality rate being reduced from 12 to 8.6 per cent; 12,416 antisyphilitic serum treatments were given to mothers, and 1,888,461 feedings of milk distributed. The latter show a decrease of 268,700, which is considered to indicate a corresponding increase in breast feeding.

The Patronato has appointed a special propaganda committee to make known in Chile the purposes, subjects for consideration, and great importance of the Third Pan American Child Welfare Congress to be held in Rio de Janeiro the last of August.

ANIMAL HOSPITAL.—Through the efforts of the Society for the Prevention of Cruelty to Animals a veterinary hospital having a pharmacy, ambulance, and first-aid service has been opened in Santiago to care for dogs, cats, and birds. It is hoped later to include other animals.

WORKMEN'S ATHENAEUM.—Under the auspices of "El Mercurio," a leading paper of Santiago, a Workmen's Athenaeum has been started in that city. In it are united the cultural societies of the working class, one of its principal purposes being to aid in promoting education among workers. The Athenaeum proposes the formation of free evening courses in vocal and instrumental music and declamation; public presentation of original literary productions by working-class authors and assistance to such authors, and the popularization of art in every possible way.

LEAGUE OF RED CROSS SOCIETIES.—The governing board of the League of Red Cross Societies has decided that hereafter one of the 15 places on that board shall be held by a Chilean.

CONTINENTAL MUNICIPAL CONGRESS.—A large delegation of city councillors from Buenos Aires and Montevideo recently visited

Santiago, meeting several times with the councillors of the Chilean capital. It was resolved to hold a Continental Municipal Congress, to which all city councils in Latin America are to be invited.

COLOMBIA.

TEMPERANCE IN ANTIOQUIA.—The departmental assembly of Antioquia unanimously passed a resolution asking the National Congress to authorize the assemblies to prohibit within their respective departments the introduction, production, sale, and consumption of distilled liquors.

RED CROSS.—The President has recognized the National Red Cross as an auxiliary of the sanitary service of the army under the Ministry of War, and consequently the Colombian Red Cross can now become incorporated in the International League of Red Cross Societies.

COSTA RICA.

MALARIA CAMPAIGN.—The Department of Prevention of Hookworm and Malaria has opened an active campaign against malaria in San Antonio de Alajuela, where 438 of the 810 inhabitants were suffering from the disease, and 201 others had at some time been malarial. The work is being undertaken under the joint auspices of the Department of Hookworm Prevention, the municipality of Alajuela and the Government. San Antonio, which is $1\frac{1}{2}$ kilometers from the city of Alajuela, is being cleaned up in an effective manner by the department, which in one week in February gave 1,335 special malaria treatments and 2 public health lectures, distributed public health pamphlets, and issued drainage and white-washing ordinances.

After San Antonio is in proper sanitary condition the department will begin operations in Rodeo. Dr. Solón Núñez is the head of the Hookworm Prevention Department which is doing this good work.

San Lucas Prison is to have a laboratory installed by the Department of Prevention of Hookworm and Malaria, since most of the prisoners were suffering from these diseases.

RENT LAW.—See page 84.

GUATEMALA.

NARCOTICS.—See page 84.

HONDURAS.

SEWERS.—Plans for the sewer system of San Pedro Sula have been completed and bids have been called for.

ROCKEFELLER FOUNDATION.—The Rockefeller Foundation has sent a commission to Honduras to aid in the extirpation of hookworm.

Dr. D. B. Wilson, one of the members of the commission, accompanied by Dr. Brizzio, Director of Public Health, has been visiting San Pedro Sula, Puerto Cortés, Tela, La Ceiba, and Roatán. A laboratory will probably be established in the first-named city.

MEXICO.

SECOND MEXICAN CHILD WELFARE CONGRESS.—The permanent committee named by the First Mexican Child Welfare Congress in 1921 has issued a call for the second conference, to be held in Mexico City January 2-9, 1923, under the auspices of "El Universal," a leading newspaper, which also arranged the first conference. All persons interested in child welfare and related problems are eligible to membership; to become a member it is only necessary to write to the secretary of the congress, Iturbide 11, Mexico City. Scientific societies and public institutions were particularly invited. The organizing committee is as follows: President, Sr. Félix Palavicini; secretary general, Dr. Francisco Castillo Nájera. Section presidents: Eugenics, Prof. Isaac Ochoterena; child hygiene, Dr. Rafael Carrillo; medical pediatrics, Dr. Joaquín Cosío; surgical pediatrics, Dr. Germán Díaz Lombardo; education, Dr. Alfonso Pruneda; legislation concerning children, Sr. Luis Jaso.

SECOND MUNICIPAL CONGRESS.—More than 500 delegates from all parts of the Republic assembled in Mexico City in April for the Second Mexican Municipal Congress, in which were discussed important subjects related to the advancement of municipal administration and community welfare.

MEXICAN BLUE CROSS.—The chapters of the Mexican Blue Cross recently held a convention in Nuevo Laredo, Tamaulipas. The city authorities and Chamber of Commerce of Laredo, Tex., just across the border, entertained the delegates.

PANAMA.

DIRECTOR OF GORGAS INSTITUTE.—Dr. Richard Strong, who recently visited Panama to meet President Porras and look over the work done in connection with the Gorgas Memorial Institute, of which he is the scientific director, has left to make his report to the board of directors in Washington. Work is to be begun in the new laboratory of Santo Tomás Hospital in July. The corner stone of the memorial building is to be laid on February 7, 1923.

PARAGUAY.

RED CROSS.—The President has issued a decree recognizing the National Red Cross.

SCHOOL BENEFIT FUNDS.—Recently a committee formed in the Constitution School took charge of raising funds for the purchase and distribution of clothing and necessities among poor pupils from the wards of Salinares, Saccarello, and Tuyucúa in Asunción. A similar committee undertook the same work in the Pedro Juan Caballero School.

PERU.

ADDITION TO CITY OF LIMA.—Congress has passed a law authorizing the President to sell certain lots along Leguía Avenue in a new part of the city of Lima. Half of the lots will have an area of 1,200 square feet, but the Government may fix a larger area for the rest. An executive decree provides that the Government shall furnish the new section of the city in question with drinking water, sewer system, and paving. The President will designate sites for the legations of Argentina, Spain, Brazil, and Venezuela along this avenue.

Y. M. C. A.—The physical training classes of the Lima Y. M. C. A. were reopened at the end of the summer season in April under a new physical director from the United States. Special emphasis will be placed on swimming.

DIRECTOR OF PUBLIC HEALTH.—Dr. Henry Hanson, who was recently appointed director of public health, has been active in keeping Lima and the adjacent valleys free from yellow fever. He was an assistant to Gen. Gorgas in the Canal Zone, and has performed distinguished service in different parts of the world as a member of the Rockefeller Foundation.

BUILDING IN LIMA.—An American firm has been given the contract for the erection of various buildings in Lima. These include a 3-story apartment house of reinforced concrete, containing 26 apartments; a 6-story concrete office building, the first modern structure of its kind in the city; a 5-story office and warehouse building; and three institutions for the Lima Charity Commission, one of which, a hospital for women, will be one of the finest edifices for the purpose in South America. The first two buildings mentioned are being put up for the archbishop of Lima, who in connection with the extensive property of the Catholic Church has adopted a building program touching all classes of the community. Model tenement and apartment houses are the main features of the plan, which is based on the belief that improved living and working accommodations are as essential to social improvement as any other factor.

SALVADOR.

MILK STATION.—The *Gota de Leche*, San Salvador's free milk station, has instituted a series of lectures on Wednesdays and Saturdays on child care and feeding and related subjects for the benefit of un-

trained mothers. One lecture gave the proper health regimen for nursing mothers; another, the effects of overfeeding, underfeeding and proper feeding. The Gota de Leche has now begun the weekly weighing of babies to watch their development on various formulas and to keep the children gaining in the right proportion to their ages.

CHILDREN'S LUNCH ROOM.—On March 27 the children's lunch room in the coeducational school of the San Esteban section of San Salvador was opened. This is the first school to have a lunch room installed, but the other schools of the city are soon to provide like advantages for their students.

URUGUAY.

ANTITYPHOID VACCINATION.—Many persons are attending the semiweekly clinics for vaccination against typhoid fever held by the National Council of Hygiene.

COMMISSION ON TRAFFIC IN WOMEN AND CHILDREN.—Dr. Paulina Luisi has been appointed government representative on the above-named permanent consulting commission of the League of Nations.

VENEZUELA.

MILK STATION.—This institution, although recently established (see the BULLETIN for March, 1922), is one of the most noteworthy in Caracas, and its work for children is every day increasing in importance. Its clinics, operating service, and other departments, including the distribution of free milk, are proving to be of the greatest social benefit. The following are the figures for 1921: Free milk distributed, 108,000 bottles, or 11,000 quarts; children under three years examined, 3,144; children over three years and adults given general medical advice, 240; ear, nose, and throat cases, 540; patients treated for diseases of the eye, 610; and laboratory examinations of various kinds, 138. Forty-two surgical operations were performed, including 7 for both adenoids and tonsils, 6 for tonsils alone, and 9 on the eye, chiefly for cataract, one according to the method of Smith.



GENERAL NOTES

ARGENTINA.

INTERNATIONAL LAW ASSOCIATION.—At the conference to take place in Buenos Aires the last of August are expected many distinguished delegates, among whom is M. Léon Caen, a French professor and author of works on commercial and international law. Mr. Riddle, United States ambassador to Argentina, has been designated by the council of directors in London an honorary vice president of the Argentina section, as have Sr. Oliveira Lima of Brazil, Dr. Cecelio Báez, former President of Paraguay, and Dr. José Zorilla de San Martín. The Dominican Republic is to be represented by Sr. Domingo Ferrer. Prominent jurists and professors of international law from the United States will attend the conference, but Secretary of State Hughes, on account of his official duties, was unable to accept the invitation.

ART EXHIBITION.—An exhibition of the paintings of the Argentine artist, Guillermo Bolín, consisting of 21 landscapes and 6 portraits, was held during March at a private residence in New York City.

BOLIVIA.

SR. DARÍO GUTIERRÉZ.—Sr. Dario Gutiérrez, a prominent statesman, died in La Paz on March 25, 1922. During the administration of President Gutiérrez Guerra, Sr. Gutiérrez was Secretary of the Treasury, and later Secretary of Foreign Affairs, both of which positions he filled with great ability. Congress declared March 26 a day of national mourning.

BRAZIL.

THE GREAT GEOGRAPHY OF BRAZIL.—The work of printing the great geography of Brazil, with which the Geographic Society is preparing to commemorate the 7th of September next, is already under way. Four years ago the idea of this undertaking was proposed at a meeting of the society by its first secretary, Senhor Lindolpho Xavier, who is the secretary of the reporting committee of the undertaking.

The work will be off the press in August, in volumes of 400 pages, in 4° size, on boufon paper, with engravings. The Government is to receive 1,000 copies of each volume for distribution among officials and foreign ambassadors at the time of the centennial celebration.

IMMIGRATION TO SÃO PAULO.—During the year 1920, 44,553 immigrants entered the State of São Paulo. Of this number 11,807 were Brazilians from other States, while the remaining 32,746 were made up, in the order of their importance, of Portuguese, Spaniards, Italians, Turks and Germans.

CHILE.

POLICE INTERPRETERS.—In order to be able to give information and assistance to tourists and others not speaking Spanish, the city government of Santiago has formed a special corps of police interpreters, who are stationed in the central part of the city. The languages spoken by these interpreters are English, French, Italian, and German.

FIFTH PAN AMERICAN CONFERENCE.—The Fifth Pan American Conference, postponed from November, 1914, when it was to have been held in Santiago, will assemble in that city in March, 1923. The first conference was held in Washington, in 1889; the second in Mexico City, in 1901; the third in Rio de Janeiro, in 1905; and the fourth in Buenos Aires, in 1910.

COLOMBIA.

PRESIDENT-ELECT OF COLOMBIA.—Washington and New York were honored in May by the visit of Gen. Pedro Nel Ospina, President-elect of Colombia, and formerly minister of his country to the United States. On General Ospina's arrival in Washington he was welcomed at the station by the Secretary of State, General Pershing, Admiral Coontz, Dr. L. S. Rowe and Sr. Francisco Yanes, Director General and Assistant Director General of the Pan American Union, Sr. Carlos Uribe, jr., chargé d'affaires of the Colombian Legation, and Sr. J. M. Coronado, secretary of the legation. A squadron of cavalry escorted General Ospina to the Colombian Legation, and acted as a guard of honor during his stay in Washington.

The same evening the President and Mrs. Harding entertained a distinguished company at dinner in honor of General Ospina. To the luncheon given for him at the Pan American Union by the Director General came the diplomatic representatives of all the Latin American countries in Washington, the members of the Cabinet of the United States, and many other personages. Among the other entertainments for General Ospina were a dinner given by Sr. Uribe, chargé d'affaires of Colombia, a theater party by the Department of State, a banquet at the Biltmore arranged by the Colombians resident in New York, and a dinner by the Pan American Society of the same city.

An unusual distinction was accorded to General Ospina upon his visit to the House of Representatives, where he was greeted by the Speaker. Upon General Ospina's entrance, Representative Mondell

announced to the House the presence of the President-elect of one of the nations of South America, a well-known man who enjoys prestige not only in his own country but in the United States. Thereupon the Representatives with one accord rose and heartily applauded their guest, a courtesy gracefully acknowledged by General Ospina.

COLOMBIAN PHYSICIAN IN THE RADIUM INSTITUTE.—Dr. Alfonso Esguerra Gómez, a young Colombian physician who is professor of pathological anatomy in the University of Bogota, is now pursuing his studies in Paris, where he has received the signal honor of being named a member of the Radium Institute of Paris. To Dr. Esguerra Gómez was given the privilege of making the first applications of the radium presented to Madame Curie by the women of the United States.

ECUADOR.

CENTENARY CELEBRATIONS.—April 21, the centenary of the Battle of Riobamba, was declared a national holiday, as this battle was the precursor of the victory of Pichincha which liberated Quito. In connection with the latter battle the artist Villacres has made portraits of the heroes and paintings of historic themes for the National Exhibition of Fine Arts which opened on the centenary.

HAITI.

GEN. EDMOND DEFLY.—The death of Gen. Edmond Defly is greatly regretted. He was a man prominent in political life who was highly regarded for the many estimable qualities he displayed in public office.

HONDURAS.

BOOK ON HONDURAS.—“Honduras’ First Century” is the name of a new book giving a résumé of the events of the first hundred years of national life of Honduras. It treats of sociological, political, military and other matters and is illustrated with 60 photographs.

MEXICO.

INVITATION TO GABRIELA MISTRAL.—In response to the invitation of the Department of Public Education, the Chilean poet and teacher, Gabriela Mistral, will come to Mexico and give a series of lectures on Hispanic-American literature and educational subjects. It will be recalled in this connection that the first school of home making in Mexico, opened a short time ago, was named in honor of this distinguished woman.

MEXICAN AIRPLANES IN BRAZIL.—The War and Navy Department has sent six airplanes to Rio de Janeiro to take part in the centenary festivities. They will be piloted by Mexican aviators.

PARAGUAY.

SCIENTIFIC EXPEDITION.—Sr. Teodoro Rojas, an official of the Asunción Botanical Gardens, returned with two companions from a year's expedition along the Alto Paraná in search of botanical specimens. Sr. Rojas has brought back an important collection of plants and flowers from that part of the country and is adding them to the nurseries and collections of the Botanical Gardens.

PERU.

THIRD PAN AMERICAN SCIENTIFIC CONGRESS.—Through the courtesy of the Ambassador of Peru the BULLETIN is informed that the date for the Third Pan American Scientific Congress, which had been set for July, 1923, has been postponed to July, 1924. Extensive public works are being carried out, and new hotels will be erected to accommodate the delegates.

DEATH OF DR. CALDERÓN.—On April 3 occurred the death of Dr. Serapio Calderón, President of Peru from April to September, 1904, to which position he succeeded on the death of Dr. Manuel Candamo. Dr. Calderón had also held other important posts, such as prefect of Cuzco, rector of the university of San Antonio de Abad in that city, and member of the higher court of that judicial district. The city of Cuzco and the whole Republic mourn the death of Dr. Calderón.

DR. ERNESTO ODRIÓZOLA.—On March 16, the first anniversary of the death of Dr. Ernesto Odriozola, a memorial tablet to him was unveiled in the Medical School. Dr. Odriozola, who was dean of that school, was esteemed and beloved by his students and by all Lima. "He was a man of science to the honor of Peru and a good man to his own honor."

FIFTIETH ANNIVERSARY.—Dr. Julio Gómez Sánchez completed on March 23 last 50 years of service as an attending physician of the Lima hospitals, an anniversary cordially celebrated by his colleagues.

PERUVIAN-BRAZILIAN FRONTIER DEMARCATION COMMISSION.—Col. Robert López, Major Manuel Zárate and Capt. Bernardino Ballena have been appointed to serve on the Peruvian-Brazilian Frontier Demarcation Commission.

STATUE OF WASHINGTON.—The Peruvian Government has decided to purchase a bronze reproduction of Houdon's statue of George Washington.

SALVADOR.

COLOMBIAN TABLET TO ÁLVAREZ.—The Colombian Legation in Central America has placed a commemorative tablet on the north face of the base of the statue of the eminent Colombian physician, Dr. Emilio Alvarez, which was erected by Salvadoreans in front of the Rosales Hospital, San Salvador.

The Colombian Minister, Dr. Rafael Esguerra, made a dedication speech in which he praised the character, achievements, and service of his compatriot who had done his work in Salvador, and commented upon the generous spirit of recognition which caused the Salvadoreans to erect the statue. The memorial tablet bears the following inscription: "The Colombian Legation in Central America to the memory of the eminent physician, whose fame has been perpetuated by the generous Nation of Salvador."

URUGUAY.

DEATH OF DR. FRANCISCO SOCA.—On March 29 of this year occurred in Montevideo the death of Dr. Francisco Soca, eminent as a physician and professor of medicine and distinguished for his public career. Dr. Soca was born in the city of Canelones in 1858. After completing his elementary studies he graduated in medicine from the University of Montevideo, then studied in Barcelona and Paris, receiving his doctor's degree for the second time in the latter city. The thesis presented in the University of Paris by Dr. Soca was a study of Friedreich's disease and contained an age law which has been applied to other diseases and translated into many languages. Dr. Soca was also the author of many other authoritative treatises on medical subjects. He was a member of the Academy of Medicine of Paris and Chevalier of the Legion of Honor.

During his scientific, educational, and public career Dr. Soca filled with distinction the offices of deputy, senator, president of the Senate, rector of the University, professor in the School of Medicine, and member of the National Council of Administration, continuing his general practice until the time of his sudden illness.

By vote of the National Assembly, the honors corresponding to a minister were paid at the funeral service, and the remains of Dr. Soca were interred in the National Pantheon. By his death Uruguay loses a physician and scientist celebrated far beyond her borders, and one of her most highly gifted sons.

MILITARY OLYMPIC GAMES.—In April 50 teams chosen from the army competed in Olympic games. This is the first athletic event of the kind in the Uruguayan Army.

VENEZUELA.

PASTEUR CENTENARY.—The National Academy of Medicine is making arrangements for the celebration on December 27, 1922, of the centenary of the birth of Pasteur. Subscriptions will be received for the monument to Pasteur to be erected in Strasbourg, and for busts of the famous scientist to be placed in the Caracas Academy of Medicine, Vargas Hospital, and the university. A Pasteur Prize will be awarded for the best treatise on national medicine or hygiene.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO MAY 27, 1922.

Subject.	Date.	Author.
ARGENTINA.		
Argentine budget and tax project for 1922.....	1922. Feb. 17	W. Henry Robertson, consul general at Buenos Aires.
Executive message to Congress regarding rural rentals.....	do.....	Do.
Petroleum development.....	do.....	Do.
Copy of monthly publication entitled "Petroleos y Minas," of Feb. 15, 1922.	Feb. 21	Do.
Copy of "Report on the financial and economic conditions in Argentina," dated September, 1921.	Mar. 1	Do.
Commercial and private failures during February, 1922, and during the last 10 years.	Mar. 2	Do.
Condition of Buenos Aires banks end of January, 1922.....	Mar. 8	Do.
Article on liquid fuel, "La Razon," of Mar. 8, 1922.....	Mar. 9	Do.
Destination of Argentina's principal exports from Jan. 1 to Nov. 30, 1921.	Mar. 13	Do.
Sale of Argentine petroleum to State Railways.....	Mar. 14	Do.
Operation of law No. 11,110, pensioning of personnel of private companies performing public utility functions.	do.....	Do.
Argentine fruit for the United States.....	do.....	Do.
Destination of Argentina's exports Jan. 1 to Mar. 3, 1922.....	Mar. 20	Do.
Registration and use of automotive vehicles.....	Mar. 21	Do.
Cultivo de la Yerba Mate (pamphlet).....	Mar. 23	Do.
Decrease of American coal imports into Argentina.....	Mar. 25	Do.
Copy of "Buenos Aires Herald" Mar. 26, article entitled "Argentina's opportunity—Solving the problem of future oil supplies."	Mar. 29	Do.
Argentine Government to purchase railway from Rosario to Mendoza and Puerto Granados.	Mar. 30	Wilbert L. Bonney, consul at Rosario.
Cereal prices week ending Mar. 30.....	Apr. 1	W. Henry Robertson.
Commercial and private failures during March, 1922.....	do.....	Do.
Condition of Buenos Aires banks at the end of February, 1922..	Apr. 3	Do.
Argentine foreign trade in 1920.....	Apr. 7	Do.
BRAZIL.		
Premium for the production of forage in Brazilian northeast.....	Feb. 21	C. R. Cameron, consul at Pernambuco.
New tanning company in Alagoas, articles of incorporation in "Diario Oficial" of State of Alagoas, Jan. 17 and 18.	do.....	Do.
Government to aid mandioca flour industry.....	Feb. 25	A. Gaulin, consul general at Rio de Janeiro.
Preliminary report on commerce and industries of Pernambuco for 1921.	Feb. 27	C. R. Cameron.
Cotton, sugar, and rice crop conditions in Brazil.....	Mar. 3	A. Gaulin.
Petroleum deposits in the State of Espirito Santo.....	Mar. 5	Do.
Telegraph apparatus in Brazil.....	Mar. 8	Do.
American Chamber of Commerce in Sao Paulo.....	Mar. 14	E. M. Lawton, consul at Sao Paulo.
Cotton shipments from Recife for January, 1922.....	Mar. 15	C. R. Cameron.
Report on mineral deposits and industries:		
Gold.....	do.....	A. Gaulin.
Monazite sand.....	do.....	Do.
Oil.....	do.....	Do.
Diamonds.....	Mar. 16	Do.
Mica.....	do.....	Do.
Decree No. 4,265 of Jan. 11, 1921, governing mining ownership and operations in Brazil.	do.....	Do.
Sugar shipments from Recife for January, 1922.....	do.....	C. R. Cameron.
Mineral deposits, coal.....	do.....	A. Gaulin.
Report on mineral deposits:		
Semprecious stones.....	Mar. 17	Do.
Manganese.....	do.....	Do.
General statement respecting Santos and its coffee trade.....	Mar. 21	Herndon W. Goforth, vice consul at Santos.
Bridge construction in Pernambuco.....	Mar. 24	C. R. Cameron, consul at Pernambuco.
Coal imports at Rio de Janeiro.....	Mar. 27	A. Gaulin.
Brazilian employees in banks and other establishments in Brazil.	Mar. 28	Do.
Telephone development in Sao Paulo.....	do.....	E. M. Lawton, consul at Sao Paulo.
Educational courses in the State of Sao Paulo.....	Mar. 29	Do.

Reports received to May 27, 1922—Continued.

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BRAZIL—continued.		
Brazilian Agricultural Society studies the substitute of gasoline by alcohol in internal-combustion motors.	Mar. 29	A. Gaulin.
Automotive vehicles in Bahia.....	Mar. 31	Thos. H. Bevan, consul at Bahia.
Weekly report on shipping.....	Apr. 1	C. R. Cameron.
Lease of the Sul-Mineira system to the State of Minas Geraes....	Apr. 4	A. Gaulin.
Condition of principal crops (from Bureau of Agricultural Meteorology).	Apr. 10	Do.
Decline in exports from Rio de Janeiro to the United States.....	Apr. 13	Do.
CHILE.		
Beet sugar industry at Valdivia.....	Feb. 15	Dayle C. McDonough, consul at Concepcion.
Crop reports.....	do.....	Do.
Annual report on commerce and industries for 1921.....	do.....	B. C. Matthews, vice consul at Antofagasta.
Straits of Magellan traffic in 1921.....	Feb. 21	Austin C. Brady, consul at Punta Arenas.
Imports and exports at Port of Talcahuano during 1921.....	Feb. 23	Dayle C. McDonough.
Public control of privately owned forest lands.....	Mar. 2	S. Reid Thompson, vice consul in charge, Valparaiso.
Exports from district to the United States during February, 1922.	Mar. 3	B. C. Matthews.
Commerce of Tarapaca during February, 1922.....	do.....	Homer Brett, consul at Iquique.
Shipping notes from Iquique.....	do.....	Do.
Exports at Antofagasta during January and February, 1922.....	Mar. 7	B. C. Matthews.
Credit conditions in northern Chile.....	Mar. 8	Homer Brett.
Market for printing ink.....	Mar. 9	Dayle C. McDonough.
Market for rice.....	do.....	Do.
Crop reports.....	Mar. 13	Do.
Packing plant at Puerto Montt.....	do.....	Do.
Effect of the "Cabotaje" (coasting trade) law at Arica.....	do.....	Egmont C. von Tresckow, vice consul at Arica.
Exports of 1921-22 crop from Talcahuano—wheat, oats, etc.....	Mar. 15	Dayle C. McDonough.
Radio stations in the Territory of Magallanes.....	Mar. 22	Austin C. Brady.
Construction of a public cart road between Tacna and Tarata....	Mar. 26	Egmont C. von Tresckow.
Electric cranes from the new mole at Arica.....	Mar. 29	Do.
Commerce of Tarapaca during March, 1922.....	Apr. 4	Homer Brett.
Market for edible oils in Chile.....	Apr. 5	Do.
COLOMBIA.		
Registration and use of automotive vehicles.....	Mar. 3	Leroy E. Sawyer, consul at Santa Marta.
The lumber market.....	Mar. 16	E. C. Soule, consul at Cartagena.
The consumption of coal.....	Mar. 17	Do.
Sale of pier concession at Cartagena.....	do.....	Do.
Registration and use of automotive vehicles.....	Mar. 27	Do.
Colombia's foreign trade balance, 1921.....	Apr. 3	Do.
Report on the iron and steel industry.....	Apr. 6	Do.
Electric current available in Santa Marta.....	Apr. 10	Leroy E. Sawyer, consul at Santa Marta.
Commerce and industries for August, 1921.....	Apr. 17	E. C. Soule.
Commerce and industries for September, 1921.....	Apr. 22	Do.
COSTA RICA.		
Market for manufactures of rubber.....	Mar. 7	Henry S. Waterman, consul at San Jose.
Railway statistics.....	Mar. 15	Do.
Lumber imports from the United States during the year 1921.....	do.....	Stewart E. McMillin, consul at Port Limon.
Registration and use of automotive vehicles.....	Mar. 21	Henry S. Waterman.
Laws governing rentals.....	Mar. 29	Do.
March report on commerce and industries.....	Apr. 5	Do.
Electric current.....	Apr. 20	Do.
Line of German steamers making Limon a port of call.....	Apr. 25	Stewart E. McMillin.
CUBA.		
Habana clearing house has successful year.....	Mar. 10	Carlton Bailey Hurst, consul general at Habana.
Mineral deposits and mining industries.....	Mar. 15	Do.
New service of the Hamburg-American line to Santiago de Cuba.	Mar. 24	Harold D. Clum, consul at Santiago de Cuba.
Movement of sugar at Matanzas.....	Mar. 30	Thomas McEnelly, vice consul at Matanzas.
New warehouses at Matanzas.....	Apr. 4	Do.
Exports of sugar from Cardenas and Matanzas, week of April 1 and amount on hand as of April 1.	Apr. 6	Do.
Sugar cane fires in Cuba.....	do.....	Carlton Bailey Hurst.

Reports received to May 27, 1922—Continued.

Subject.	Date.	Author.
CUBA—continued.		
The market for American staves.....	Apr. 16	Frank Bohr, consul at Cienfuegos.
Propaganda to encourage purchase of products of Cuban manufacture.	Apr. 18	Thomas McEnelly.
Proposed sugar refinery at Matanzas.....	do.	Do.
Electric current available at Matanzas.....	Apr. 19	Do.
Mineral deposits and mining industries for year ending Dec. 31, 1921.	do.	Harold D. Clum.
DOMINICAN REPUBLIC.		
General trade and economic conditions.....	Mar. 17	W. A. Bickers, consul at Puerto Plata.
Annual report on commerce and industries for the year 1921.....	Mar. 31	Geo. A. Makinson, vice consul in charge at Santo Domingo City.
ECUADOR.		
Regulations of the new Postal Convention.....	Mar. 1	Frederic W. Goding, consul general at Guayaquil.
Registration and use of automotive vehicles.....	Mar. 9	Do.
February report on commerce and industries.....	Mar. 13	Do.
Market for manufactures of rubber.....	Mar. 15	Do.
Coal and coke in Ecuador.....	Mar. 20	Do.
Iron and steel industry in Ecuador.....	Apr. 11	Do.
GUATEMALA.		
Public control of privately owned forest lands.....	Mar. 21	Arthur C. Frost, consul at Guatemala City.
The market for soap in Guatemala.....	Mar. 27	Do.
Market for American canned goods.....	Mar. 29	Do.
Market for manufacturers of rubber.....	Apr. 4	Do.
Registration and use of automotive vehicles.....	Apr. 6	Do.
New hotel in Guatemala City.....	Apr. 8	Do.
The iron and steel industry in Guatemala.....	Apr. 10	Do.
Annual report on commerce and industries for 1921.....	do.	Do.
Regulations for control of traffic in narcotics.....	Apr. 11	Do.
HAITI.		
Registration and use of automotive vehicles.....	Apr. 5	Damon C. Woods, consul at Cape Hatien.
The market for staves.....	Apr. 20	William R. Brown, vice consul at Port au Prince.
HONDURAS.		
Education in Honduras.....	Mar. 9	G. K. Donald, consul at Tegucigalpa.
Report on coal.....	Mar. 15	Do.
Railroad construction in Puerto Cortes district.....	do.	Albert H. Gerberich, vice consul at Puerto Cortes.
February report on commerce and industries.....	Mar. 20	G. K. Donald.
Market for railway ties in Honduras (part 1).....	do.	Do.
Prospecting and mining in departments of Colon, Atlantida, Yoro, and Olancho, and in the Mosquitia.	Mar. 25	Alexander K. Sloan, consul at La Ceiba.
Railway mileage in Honduras.....	Mar. 30	G. K. Donald.
Trade notes.....	Mar. 31	Do.
Length of railroads in operation (Mar. 1, 1921) and extension planned for next two years.	Apr. 1	Do.
March report on commerce and industries.....	Apr. 13	Do.
MEXICO.		
Report on motor vehicles.....	Mar. 10	Willys A. Myers, vice consul at Veracruz.
Highway construction.....	Mar. 13	George E. Seltzer, vice consul at Salina Cruz.
Proposed automobile highway between Ciudad Juarez and Mexico City.	Mar. 18	John W. Dye, consul at Ciudad Juarez.
Mining notes from Sonora.....	Mar. 21	Francis J. Dyer, consul at Nogales.
Issue of Mexican bank notes proposed.....	do.	Do.
Coinage of Mexican gold and silver.....	Mar. 24	Claude I. Dawson, consul general at Mexico City.
New public building at Magdalena.....	Mar. 28	Francis J. Dyer.
Ciudad Juarez agricultural school.....	Mar. 31	John W. Dye.
International base ball on Mexican border.....	Apr. 13	Francis J. Dyer.
Public library at Pitiquito.....	Apr. 28	Do.
Road work in Sonora.....	do.	Do.

Reports received to May 27, 1922—Continued.

Subject.	Date.	Author.
NICARAGUA.		
Restriction and use of motor vehicles.....	Mar. 13	Harold Playter, consul at Corinto.
1921-22 coffee crop.....	Mar. 15	Do.
Concession for wireless stations in Nicaragua.....	Mar. 17	Do.
Public control of privately owned forest lands.....	Mar. 19	Do.
Railway mileage on west coast.....	Apr. 5	Do.
Price of coffee in Nicaragua.....	Apr. 6	Do.
Market for manufacturers of rubber.....	Apr. 12	Do.
PANAMA.		
Educational courses in schools.....	Feb. 15	George Orr, consul at Panama City.
Law regarding manufacture, inspection, and operation of steam boilers.....	Feb. 25	Do.
January report on commerce and industries.....	Feb. 28	Do.
February report on commerce and industries.....	Mar. 25	Do.
Making use of native woods in Colon.....	Mar. 27	Julius D. Dreher, consul at Colon.
Registration and use of automotive vehicles.....	Mar. 28	Do.
Selling cement in Colon.....	Mar. 30	Do.
Mineral deposits and industries in the Republic of Panama.....	Mar. 31	George Orr.
Imports and exports of the Republic of Panama, 1921.....	Apr. 3	Do.
PARAGUAY.		
New schedule of prices of Paraguayan public lands and the products thereof.....	Feb. 13	Harry Campbell, consul at Asunción.
Cultivation of coffee in Paraguay.....	Feb. 15	Do.
Mineral deposits and industries.....	Feb. 25	Do.
Market for American canned goods.....	do.	Do.
Sheep and wool of Paraguay.....	Mar. 1	Do.
Mandioca bread in Paraguay.....	Mar. 9	Do.
Paraguayan Government exchange procedure.....	Mar. 10	Do.
Meat extract plant to open in Paraguay.....	Mar. 21	Do.
Automotive vehicles.....	Mar. 24	Do.
PERU.		
Annual report on commerce and industries for 1921.....	Feb. 1	Claude E. Guyant, consul in charge, Callao-Lima.
Public control of forest lands.....	Mar. 14	Do.
Customhouse statistics of imports and exports for the month of February, 1922.....	Apr. 7	Walter C. Hoer, vice consul at Callao-Lima.
SALVADOR.		
Registration and use of automotive vehicles.....	Mar. 2	Lynn W. Franklin, vice consul at San Salvador.
International Railways of Central America, division of El Salvador.....	Mar. 15	Do.
Report on general conditions week ending Mar. 31.....	Mar. 31	Do.
Official statistics giving weight and value of imports for 1913 and 1919, and exports for 1913, 1919, 1920.....	Apr. 11	Do.
URUGUAY.		
Commerce for December, 1921, and for a period from Jan. 1 to Dec. 31, 1921.....	Feb. 20	David J. D. Myers, consul at Montevideo.
Wool exports from Montevideo, Sept. 1, 1921, to Jan. 1, 1922.....	Feb. 22	Do.
Cattle industry in Uruguay.....	Mar. 7	Do.
Financial notes.....	Mar. 11	Do.
Commerce and industries for February, 1922.....	Mar. 22	Do.
Report on minerals, production of cement.....	Apr. 5	Do.
VENEZUELA.		
National annual report on commerce and industries for the year 1921.....	Feb. 20	S. J. Fletcher, vice consul at La Guaira.
Lumber importations at La Guaira.....	Mar. 3	Do.
Coffee shipments from Maracaibo, February, 1922.....	Mar. 7	John O. Sanders, consul at Maracaibo.
Mineral deposits and industries of Maracaibo district.....	Mar. 10	Do.
Shipments of coffee and cacao in 1921.....	Mar. 15	Thomas W. Voetter, consul at Caracas.
Report on Government-controlled merchant marine.....	do.	S. J. Fletcher.
Report on the mineral industries of Venezuela.....	do.	Do.
February report on commerce and industries.....	Mar. 20	Do.
Railway mileage of Venezuela.....	Mar. 22	Do.
Pendare, a rubber substitute from Venezuela.....	Mar. 25	Do.
Market for cotton piece goods.....	Mar. 28	Thomas W. Voetter.
Exports of coffee from Maracaibo for the year 1921 by exporters and by destination.....	Apr. 5	John O. Sanders.
Revenues of the railways of Venezuela for the year 1921.....	Apr. 11	S. J. Fletcher.

BOOK NOTES

PUBLICATION ADDED TO THE COLUMBUS MEMORIAL LIBRARY DURING
JANUARY, 1922.

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- Sueroterapia y vacunoterapia en la blenorragia y sus complicaciones. [Por] Dr. Victor Idoyaga. Comunicación al 2° Congreso Sudamericano de sifilografía y dermatología del 9 al 16 de Octubre de 1921, en Montevideo. Asunción, Imprenta Nacional, 1921. 20 p. 8°.

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- Ceremonial diplomático de El Salvador. Ministerio de Relaciones Exteriores. San Salvador, Imprenta Nacional, 1911. 26 p. 12°.
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- Fractionation of chaulmoogra oil. By Arthur L. Dean and Richard Wrenshall. Reprint No. 646 from the Public Health Reports, April 1, 1921. Washington, U. S. Public Health Service, 1921. 22 p. 8°.
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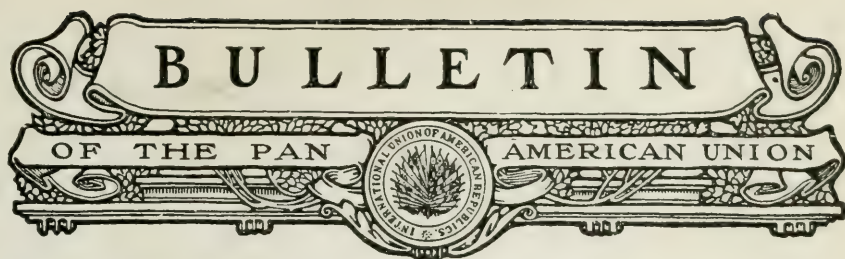
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HIS EXCELLENCY, DR. ALFREDO ZAYAS, PRESIDENT OF CUBA, AND HIS CABINET.

At the head of the table is Dr. Zayas, President of the Republic. On his right: Dr. Carlos Manuel de Céspedes, Secretary of State; Dr. Erasmo Regieleros, Secretary of Justice; Sr. Ricardo Lanzas, Secretary of Government; Sr. Manuel Despaigue, Secretary of the Treasury; Captain Demetrio Castillo Pokorny, Secretary of Public Works. On his left: Dr. José Manuel Cortina, Secretary to the President; Brig. Gen. Armando Montes, Secretary of War and Navy; Dr. Aristides Agramonte, Secretary of Public Health and Charities; Gen. Pedro Belancourt, Secretary of Agriculture, Commerce and Labor; Dr. Francisco Zayas, Secretary of Public Instruction and Fine Arts.



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LEGAL INSTITUTIONAL BACKGROUND OF IBERO AMERICA

By C. E. McGUIRE,

Assistant Secretary, United States Section of the Inter American High Commission.

AFTER 80 years of incessant warfare as bitter and merciless as any that characterized the growth of the Empire, not even excepting the Mithridatic Wars, the Iberian Peninsula was pacified thoroughly and permanently under Roman rule. The work of a series of able generals might have been consummated sooner but for the disadvantage of divided counsel and lack of continuity of authority; in the hands of Augustus the task was carried to completion.

The peninsula quickly took its place in the Roman system. Before the centenary of the battle of Munda, the Spanish Provinces were already supplying leaders in the world of industry, military affairs, administration, jurisprudence, and refinement. Another half century saw the political balance of power pass to patrician families long associated with the romanization of Spain and, in a remarkable series of personalities, witnessed the rise of Spaniards to the most exalted posts that men have ever known for the conduct of their political affairs.

The Roman Empire was a world commonwealth, permitting the fullest development of local excellencies of character or genius, all of which were capable of contribution to the common good of the Empire, without any of the hindrances of artificial nationalism which mankind has since fashioned for itself. So that, when at the beginning of the second century North Africa and Western Asia assumed the

political supremacy in the affairs of the Empire, Spain retained her great influence in the world of cultivation as well as in that of public affairs. Throughout the long period when the Empire for the first time failed readily to assimilate the ever-increasing numbers of Germans who, under the guise of immigrants, mercenary soldiers and even seasonal laborers, began the long process of infiltration which before long was destined to bring on a condition of arterio-sclerosis and final dissolution—throughout this period Spain was not only one of the most tranquil portions of the Empire but its source of greatest strength in withstanding the ravages of time. It has been wrongly, if not foolishly, said that the Empire was dedicated to the false ideal of a static condition, and that Spain has never gotten over her long association through centuries with this ideal; the fact is, on the contrary, that Spain, so far as in her lay, and the Empire as a whole, contemplated changing conditions with serenity and confidently sought their adjustment in the true spirit of progress and adaptation.

The crowning work of Roman jurisprudence was carried on in the epoch between the Emperors Theodosius and Justinian. In the actual task of codification it is true, perhaps, that we meet no Spaniard by birth; but in the material assembled and classified we see numerous examples of the important contribution to Roman law made by the jurists of Spain. The influence of the work of Justinian must not be thought to have been delayed so far as Spain is concerned until the later revivals of the Roman law; for, in fact, the influence of the Eastern Roman Empire was paramount in all parts of the peninsula during the stirring period of Gothic conquest and was not limited to the Southeastern Provinces actually under Byzantine rule in this essential.

The Visigoths gave to Spain the most elaborate, consistent, and enlightened of the legal systems enacted by Germanic rulers in Western Europe. Beginning with Euric, in the middle of the fifth century, they prepared, purely on the basis of Roman law, a series of legal definitions, the "*Statuta Legum*," generally known as the *Antiquae*, from the appellation given them in the later editions of the Visigothic code. A half century later the *Lex Romana Visigothorum* emanated from Alaric—we know it generally as the *Breviarium Alarici*—a *Volksrecht* for the governed, whipped into shape for court use. Upon these excellent definitions, successive Visigothic rulers erected a structure of law, finally codified in the third quarter of the seventh century under the able monarchs Chindaswinth and Recceswinth. The *Liber Judiciorum*, the final version of the *Lex Visigothorum*, is the work of Recceswinth.

Nor may we overlook the work of the church councils—that proud series of Toledo, above all. Here were gathered Spain's law makers and law interpreters, for the episcopate in Spain acted as judges

more regularly than elsewhere in the west until the Carolingian period.

Meanwhile, the Roman law in its Theodosian form, and to some extent in the immortal form given to it under the auspices of Justinian, prevailed in the eastern cities, establishing the basis of a commercial law and a maritime law for the commercial communities along the Mediterranean. The ease with which the principles of Roman law in many places and at many times in Europe's history have succeeded in retaining their force when the written codes were forgotten and only customary and traditional precepts were obeyed, is an ever recurring source of wonder to the student of the history of law. Such was the case in these eastern cities of Spain, and again later in the valleys of northern Spain when the fragments of pre-Roman, Roman and Gothic culture slowly and painfully began to heal after the crushing conquest of Islam.

Mohammedan Spain must not be thought to connote Arabic Spain. The Arabs were few; Moors and other Berber races supplied the major portion of the new race of conquerors, of the new sediment settling down to enrich the soil of Spanish national character and genius. And if the Arabs possessed great jurists and keen legal minds, as was undoubtedly the case, the races of North Africa were not so blessed. Mohammedan Spain possessed a certain brilliance of culture, but its tastes lay in the direction of art and literature, and to some extent in that of the exact sciences and of the practical objects of their application. Consequently, we find few contributions to the science of law during this epoch of Spanish history. Nor, on the other hand, were the Christian kingdoms of the north able to devote themselves with any concentration to the development of legal studies, carrying on as they did the long task of reconquest, a perpetual crusade with frequent breathing spells, each preparatory for another push to the south. The Visigothic Code remained the ultimate sanction of customary law in the north, particularly in the northwest, as the northeast lay more open to the penetration of Carolingian influence, which after all was Visigothic. One thing these hundreds of years of warfare did contribute, however—a strong reliance upon representative government, especially in the eastern kingdoms. The throbbing, energetic life of Cataluña made possible the development of a well-informed middle class, capable in the formulation of its own rights and tenacious in their defense. In the other kingdoms the necessity to which each monarch, respectively, was put of depending upon feudal assistance for the prosecution of the war against the infidel gave greater and greater strength to the pretensions of the nobility to share in the affairs of state. The tenth, eleventh, and twelfth centuries saw the rise of parliamentary institutions far superior to anything that the rest of Europe was to see for as much as two centuries.

The royalist reaction from the régime of limitation imposed on the royal will by the feudal lords constitutes the most important political development at the end of the Middle Ages. And this royalist reaction was carried out largely through the *legistes* and *letrados*. Busily delving into the Roman law and finding ample nourishment for the upbuilding of royalist pretensions to unlimited power among the theoretical imperialism of the later Roman Empire as expressed in the great code makers or commentators, the jurists at the courts of Valladolid and Barcelona and elsewhere in Europe were able effectively to reinforce the royalist claim to be the sole source of authority, or at least to have full discretion as to enforcement of legislation. This is the epoch which begins with S. Ferdinand and his son Alfonso the Tenth, well named the Wise, under whose auspices were brought together the elements of a great legal system henceforth to prove the fundamental basis of Iberian law, not only in the Peninsula but in the great continent which came under Iberian influence, and even beyond, to those remote outposts of Iberian culture on the edge of Asia. S. Ferdinand, in 1241, took a decisive step in making a national code by granting the *Fuero Juzgo* to Córdoba; in 1246 to Cartagena, in 1250 to Sevilla. Alfonso's *Fuero Real* bears the date of 1255; its commentary, the *Leyes del Estilo*, was given out a few years later. *Las Siete Partidas* was put together between the years 1256 and 1265, although this great code received binding force only in 1348 by command of Alfonso XI, the Rey Justiciero. It is the period, also, when busy jurists of Cataluña, Aragon, Valencia and Portugal were constructing their *usatici* and *constitucions* and their *observancias* and *Capituli Regni Aragonum*, their *Fori Regni Valentiae* and their *Ordenações Affonsinas*. The law of the sea receives its codification in Barcelona at the request, no doubt, of the body then equivalent to our chambers of commerce, and under the effective and learned guidance of doctors in the law from Bologna.

The world was getting in order for a great wave of legal codification and the jurists of Spain had no monopoly in this enterprise. The law of the church was being organized and at the beginning, at least, very largely by the same men as those engaged in the rehabilitation of the civil law of Rome. Later, say at the end of the twelfth century, canonist and civilian ceased to be synonymous, though not infrequently that was the case. There were often men like Bishop Vidal de Cañellas, equally celebrated as canonist, civilian, code maker of foral laws and court councilor.

In both fields Spain continued to produce series of eminent scholars. The fifteenth century, it is true, in Spain as well as elsewhere, was a century of slight progress in the science of law, but the sixteenth century dawned brilliantly in the Peninsula and scientific study of the law progressed rapidly in the great universities of Castile and the eastern kingdoms, as well as at Coimbra.

I must mention some names here, men as significant in the world of Ibero-Roman law as Blackstone or Kent in that of Anglo-American law. Jaime Cacer,¹ Luis de Peguera,² J. B. Fontanella,³ Miguel de Cortiada,⁴ Francisco Ramos del Manzano,⁵ and Bovadilla.⁶ It is small tribute to these men to mention them merely by name, and it is little just to many others to pass them by unmentioned. But all have their share in the construction of the great edifice of Spanish Law and in honoring this system, we honor them.

This is the century when so ambitious and inspiring an effort was made to influence the character of law by making it more responsive to what were called natural and instinctive principles of justice. The same lofty motive and high outlook upon life that had characterized the Roman jurists of the second century, again animated philosophers and jurists and led them to attempt to square the principles of law with what had long been regarded as defined mandates of justice. In the latter case, of course, it was not so much the work of philosophers as of men of religion. The attempt was made by Suárez and other jurist theologians to christianize the law and erect a dam against the anarchical current of individualism in law which had broken loose at the time when the theory concerning the divinely instituted state was given powerful sanction. Henceforth the theologian jurist of Spain emphasized the universality of law and the criterion of justice. They recognized freely the separateness of States, but they insisted that what the State does is done by way of recognition and ascertainment of law. They conceived of the world juristically; ethics saturated, and became identical with, the world of law. What ought to be law, they said, is law. Law is a recognition of natural principles; it is a body of restraints upon the free actions of individual units, the inner-relations of which must be fixed accurately and firmly by juristic theory. New political facts and the transformations going on before men's eyes in those days when the foundations were being laid for the benevolent despotisms and absolutist states of modern times were readily recognized, but none the less they sought to infuse the new organisms being created in their own day with the profound conviction of, and loyalty to, the unity and eternity of natural law.

The part of these jurists in molding the theory of the next century has never been rightly estimated. Without their work Grotius could never have been able to set about his great task of producing conformity of the law to the nature of rational creatures. They had succeeded in fusing morals and the law; this much he and his suc-

¹ *Decisiones Variae*, 2 v. in fo., Barc. 1635.

² *Decisiones Aureae*, 2 v. in fo., Barc. 1605-1611.

³ *Senatus Cathaloniae Decisiones*, 2 v. in fo., Barc. 1630; *De Pactis Nuptialibus*, 2 v. in fo., Barc. 1612.

⁴ *Decisiones Cancellariae et sacri Senatus regii*, 4 v. in fo., Venice 1727.

⁵ *Ad Leges Juliam et Papiam*. Madrid 1678.

⁶ *Politica Para Corregidores* (many editions; the most common, Antwerp 1750).

cessors took as they found for granted. And even though they divided authority by implication the eternity and unity of legal principles, they fell back upon these concepts of the Spanish jurists for their definitions. It would be far from our task to trace this development into our own time, long and complex as such an inquiry would be.

In Spain itself the fundamental and central concept of the sixteenth and early seventeenth centuries held unbroken sway: "A law of nature is a law of reason." Proceeding from this starting point, juristic speculation in Spain was able to explore all the possibilities therein implied, in the relative security and the serenity of the affairs of Spain during those turbulent years of the seventeenth and eighteenth centuries. What was felt in Spain was, of course, accepted in her colonies. There is no distinct colonial law until the period of independence.

Meanwhile, a vast body of administrative law had been growing up in Spain. The consummation of the centralized and autocratic government under Hapsburg and Bourbon necessitated the creation of an elaborate administrative system, with a procedure animated by a meticulous spirit and prepared for any litigious contingency. The task of administering all the affairs—even to the most minute detail—of South America, and a large part of North America, the West Indies, the Philippine Islands, northern Italy, Southern Italy and the possessions held at various times in the low countries, compelled the numerous councils and administrative bodies at Madrid to become acquainted with customary and local law of many diverse corners of the world, and led them to take a wise and moderate view of the limitations of man-made legislation. The charge of dilatoriness and indecision made against those authorities is not supported by examination of the vast collections of documents preserved in the colonial, judicial, and administrative archives of Spain. Rather than neglectful and indifferent, they were over-zealous and over-particular; case after case involving jurisdiction in only the slightest degree was carefully examined by one tribunal after another, and the most thorough inquiry made as to all the precedents, no less than as to the fundamental principles of law underlying the controversy. The difficulties of transportation and communication, as compared with its facility in our own day, naturally caused a considerable lapse of time when matters were to be handled in this matter.

In the Peninsula itself the work of classification and codification went on with commendable industry and surprising success. The law of the Indies was gathered and sifted and edited by the Council of the Indies in one edition after the other, each more comprehensive and yet more practical in application. The laws and ordinances of Castile and the eastern kingdoms were gathered and subjected

effectively to the same process. The law of the church which at that time covered so large a portion of what to-day is covered by civil law, including the subjects of inheritance, marriage, and divorce, as well as other matters even more secular in character, was also organized, so far as it lay within the province of the Spanish ecclesiastical authorities to reorganize it; and in no small degree the later work of the canonists and codifiers of the eighteenth century was assisted by the experience of the Spanish canonists.

Napoleon played a dramatic part in the history of Spanish law, as in other phases of Spain's national life. The ruthlessness with which decree after decree emanated from him under the signature of his brother Joseph, abrogating and consolidating, revising and remodelling the traditional laws and codes of administration of Spain, did its share in turning that conservative people against him beyond hope of reconciliation. Nevertheless, distinct traces of the short-lived but vigorous attempt to bring the law and jurisprudence of Spain into line with that of France are to be found. When the great conqueror had passed away and Ferdinand the Seventh was vainly attempting to make Spain believe that there had never been a Napoleon or an interregnum, there were many Spanish lawyers and administrators who could contemplate with satisfaction the quickening influence of the French and probably murmur to themselves something like that which the Austrian Emperor is said to have remarked when, during his first visit to Dalmatia after the French withdrawal, he saw the excellent roads they had built: "What a pity they could not have stayed somewhat longer."

The French Revolution had, of course, a tremendous influence in Latin America. Revolutionary literature was smuggled from every British port in the West Indies, a traffic with which the British authorities were complacent enough not to interfere so long as it was directed against their colonial rival in the Western Hemisphere. No machinery of repression seemed able to check the spread of subversive doctrines and movements. By military and passive resistance, the colonies broke down the effectiveness of the royal attempt to maintain Spanish authority. Fifteen years of exhaustive struggle ended in the emancipation of at least the continental colonies of Spain—and I use the word emancipation strictly in its old Roman law sense—the cessation of the *patria potestas* over the child.

France was the source of a vast amount of inspiration during all this time and long after. In less degree Great Britain and United States contributed to stimulate the leaders of the new republics, but in law Spanish America as well as Portuguese America, at the outset at least, clung to the standards and principles of the Peninsula. Little by little, as their own distinctive national differences were brought out, as their own universities were established, and as

their jurists freely went to the great centers of legal inspiration in Europe, the influence of Spanish law grew less binding although it served ever as a ready standard of comparison. And it may be said that to-day throughout Latin America the jurisprudence of Spain is studied with the closest attention and fullest respect; while every important legislative enactment in the Peninsula is the subject of careful scrutiny in America.

The influence of Spain over the law and legal philosophy of her former colonies—and the same may be said to a less degree in the case of Portugal and Brazil—is therefore to-day not so much one of jurisdictional authority as of a moral authority, an authority due to excellence and soundness, reinforced naturally by the bonds of common language and origin and the close sympathy of a rich traditional culture. The law and political science of Spain and Portugal have been interpreted by a notable series of analysts from Mari-chalar y Manrique and Herculano to Gama Barros and Hinojosa, Sánchez Román, Colmeiro, and Posada. These are but a few of the many names honored throughout Ibero America as much as in the Peninsula itself.

The influence of France and Germany, of Italy, Great Britain, and the United States, on the other hand, is the influence of countries forging far in one or another special line, achieving positive and enduring results which the keen and appreciative Latin American jurist is able readily to appraise and to assimilate to the particular conditions of his own people. The community of ideals in the world of juristic theory is most marked when one contemplates the Spanish and Portuguese speaking peoples as a whole. Of no other great family have there been so many independent units facing so many and so diverse physical and even ethnological conditions, dominating and assimilating them in one or another happy combination certain to survive and to contribute effectively to the good of mankind. It was not remarkable, therefore, that pioneer efforts to establish a more rational and more just body of rules governing the relations of states should have emanated from this family, and that its scholars and jurists should have taken the preeminent part in our own day in seeking to substitute law and order for chaos and haphazard arbitrariness. In the furtherance of this cause, to which in so great part Latin America has dedicated itself, it will, of course, be able to count upon the cordial support of Spain and Portugal and perhaps of the rest of the Latin world; and it should be our devout hope that this promising combination of the old spirit of Roman law with all its universality and adaptability, humanized and ennobled by the Iberian race through centuries of slow and painful endeavor, with the stimulating atmosphere of freedom of the American Hemisphere, should give to the world what it seems at this day most to need—a unified system of law, universal, unimpeachable, and just.

AN INTERNATIONAL DEDICATION CEREMONY

SOMEWHAT less than a year ago Sunday, September 25, 1921, to be exact—the town of Puno, capital of the Peruvian Province of the same name, was early astir. In the plazas and other wide spaces, in every street, in almost every house, were unmistakable signs that unusual doings were in preparation in this quaint little town, which is situated nearly 13,000 feet above sea level. From the municipality and other official buildings floated the national colors intertwined in friendly fashion in many instances with those of Bolivia and the United States. From daylight the numerous roads leading into the town from the outlying districts were thronged with country people in gala attire, the variegated hues of the latter adding a brilliant and colorful note to the rather somber, if picturesque, background—all intent on reaching the town as early as possible. By 8 o'clock this cumulative stir and movement had acquired a definite direction and a common objective point—the railway station. Here, enlivened by the strains of military and other bands, assembled in quick succession numerous delegations of young people representing the municipal and other local institutions of learning, various civic and commercial bodies, the eleventh regiment of infantry, a platoon of police in military formation, a large proportion of the most eminent citizens of Puno with their wives and children and last, but not least in number, the country folk from the surrounding villages. Here, also, this great and orderly assemblage, numbering between three and four thousand people, entrained shortly for Huaje on the shore of Lake Titicaca, directly in front of the island of Esteves, as provided by the Peruvian Government, in train sections, running at intervals of 15 minutes, beginning with 9 o'clock. Among the very last to arrive and entrain were the official Government delegations which included high dignitaries representing not only the Governments of Peru and Bolivia but also the principal universities and learned societies of each of these Republics, and which formed, as it were, a guard of honor for a group of three American ladies, Miss Anna Orton, Mrs. Sanford, and Miss Ellen Farrar. These ladies were most intimately and vitally concerned in the pilgrimage whose setting forth has just been described, since the object of the latter was nothing less than to fittingly inaugurate and dedicate the permanent monument marking the grave of that eminent scientist and explorer, James Orton, father



Courtesy of Sr. Eduardo S. Arenas.

MONUMENT TO JAMES ORTON ON ESTEVES ISLAND, LAKE TITICACA, RAISED BY THE ALUMNÆ ASSOCIATION OF VASSAR COLLEGE, DEDICATED SEPTEMBER 25, 1921.

of the first named lady and formerly one of the most distinguished members of the faculty of Vassar College to whose alumnae, represented on the present occasion by the two last named ladies, the monument owes its erection.

It is a far cry indeed, from that grey September day in 1877 when, returning from his third and last South American expedition in which he explored the Beni River to its junction with the Mamoré, this eminent American scientist and explorer, overtaken by death, was laid to rest in a lonely grave on remote Esteves Island; but the



Courtesy of Sr. Eduardo S. Arenas.

THE OFFICIAL COMMITTEE CLIMBING THE HILL ON THE WAY TO THE MONUMENT.

deeds of the world's stout-hearted still echo and reecho down the corridors of time, and will through ages untold. Although the readers of the BULLETIN are well informed as to Professor Orton's achievements, some account of them will not be out of place here.

[Born in Seneca Falls, N. Y., April 21, 1830, James Orton was early destined by his parents for the ministry. Graduating from Williams College in 1855 and from Andover Theological Seminary in 1858, he traveled for some time in Europe and the Far East before being ordained. But his career as a scientist began in 1866, when he became professor of natural sciences in Rochester University. In 1867 he was named head of the scientific expedition organized

that year by the Smithsonian Institute, the successful results of which are to be seen to-day in the collections not only of the Smithsonian Institute, Washington, D. C., but in those of other important foundations. Leaving New York on July 1, 1867, Orton and his fellow explorers crossed the Isthmus of Panama and proceeded southward, touching at Paíta and Guayaquil, going on from the latter to Quito, crossing the eastern cordillera on the way. From Quito they proceeded on foot, by the western cordillera, to the Napo River which they reached only after traversing the trackless forest.

From here, the expedition went down the Napo in canoes to Pebas on the Marañón, and thence by steamer to Para in Brazil.

Immediately after his return to the United States, Orton was appointed professor of natural sciences in Vassar College, which position he held until the time of his death.

In 1873, Professor Orton organized a second expedition across South America, entering this time at Para, and going from there up the Amazon to Lima, and thence to Lake Titicaca. It was during this voyage that the material which later formed his valuable ethnological collection of Incaic remains was collected.

In 1876 he organized a third expedition with the purpose of exploring



MRS. ALICE P. SANFORD, ON BEHALF OF THE VASSAR ALUMNÆ ASSOCIATION, DELIVERING THE MONUMENT INTO THE KEEPING OF PERU.

ing the River Beni, a tributary of the Mamoré, successfully reaching the junction of the former with the latter. From this point Orton, together with some of his companions, started to return to La Paz, traversing 600 miles of almost impenetrable forest in which they encountered incredible difficulties and endured untold hardships, finally, however, reaching Lake Titicaca, which they attempted to cross. But when nearing Puno, the intrepid and stout-hearted Orton was surprised by death on September 25, 1877, his remains being taken to Esteves Island for burial by friends who, later, marked the grave by a rough sandstone monument.

During the years which have intervened, neither the Government of Peru nor that of Bolivia has been unmindful of the extremely valuable services rendered by this distinguished and indefatigable explorer, the former honoring Orton by giving his name to one of the

rivers which combine to form the Beni—this tributary of the rushing Mamoré having been discovered and explored throughout its entire course by Orton during his last expedition.

And the years went by. The workman is no more, but his achievements remain, while the work itself continues. In the interim, new explorers have discovered and charted other untracked wastes, new rivers have been added and doubtful rivers verified in the map of that great hinterland of the Amazon River system; but each new discovery, each new achievement, has but added greater luster to Orton's labors and further enhanced his memory. And so by easy and difficult stages we reach September 25, 1921, and the setting forth in Puno on the roof of the Western Hemisphere of this great pilgrimage to his never-to-be-forgotten grave.

When we abandoned our pilgrims for this long digression, they were on their way to Huaje. Now Huaje is the seat of a dry dock for lake shipping, and there the Government and the prefecture of Puno had very cleverly arranged a bridge of balsas upon which the immense concourse might safely pass from the mainland to the island where the ceremonies were to take place. The official committee, composed of the Prefect of Puno, the three American ladies already named, the members of the official Peruvian and Bolivian



THE PREFECT OF PUNO, SR. EDUARDO S. ARENAS, ACCEPTING THE MONUMENT ON BEHALF OF THE GOVERNMENT OF PERU.

delegations, the delegations from the universities of Cuzco, Arequipa, and Lima, and other local authorities and institutions reached Huaje at 10.30, whereupon the official procession headed by Miss Orton and the Prefect was formed, passing through a lane of soldiers to the water's edge and thence by the bridge of balsas to the island and Orton's grave, which is located near the summit of Esteves, the highest island in the world. As the solemn procession reached the grave, the combined colors of Peru, and the United States, were unfurled to the breeze amid the booming of cannon, the thrilling note of the bugle announcing *The Flag!* and the long-continued salvos of *¡Viva el Peru!* *¡Vivan los Estados Unidos!* from the mass of spectators, who seemed to cover the island from shore to shore. As

soon as quiet had been restored, Mrs. Sanford, on behalf of Vassar College and the Pan American Union, in a brief but expressive speech solemnly delivered the monument into the keeping of the Peruvian Nation, the monument—which was covered with the flags of Peru and the United States loaned by the United States Navy Department at the suggestion of the Pan American Union—being accepted on behalf of Peru by Sr. Arenas, the Prefect of Puno, in a most fitting and eloquent speech. Miss Orton responded in memory of her father, being followed in turn by Dr. Abel Iturralde in representation of the Bolivian Government. In quick succession there followed

speeches by Dr. Arturo Posnansky, director of the National Geographical Society of Bolivia; Dr. Alberto A. Giesecke, rector of the University of Cuzco; Sr. Miguel Cáceres, on behalf of the Geographical Society of Lima; Dr. Julio C. Campos Delgado, on behalf of the University of Arequipa; and Sr. Cúneo Harrison, on behalf of the University of Lima, each of whom at the conclusion of his speech laid an elaborate commemorative wreath at the base of the monument.



MISS ANNA B. ORTON SPEAKS IN MEMORY OF HER DISTINGUISHED FATHER.

By a curious coincidence, the Government of Peru had arranged that, immediately following the conclusion of the ceremonies in connection with the inauguration of the monument to Orton, another monument in honor of the heroes who died on the island during the struggle for national independence should be dedicated, Esteves Island having been used by the Spanish authorities as a political prison. In this connection it will be of interest to the readers of the BULLETIN to note that José Pezet, a colleague and comrade of the patriot Unánue, and the father of the present ambassador from Peru to the United States, Sr. don Federico A. Pezet, was one of the prisoners confined on this island during the Revolutionary period.

The inauguration was followed that afternoon by a sumptuous banquet given in Government House by the Prefect of Puno in the name of the President of the Republic of Peru, Señor don Augusto B. Leguía, in honor of Miss Anna B. Orton, Mrs. Sanford, and the scientific and official commissions connected with the inauguration ceremonies. This banquet lasted until late in the afternoon, so late,

indeed, that the exhibition of "sports" scheduled to take place at 3 p. m. had to be postponed until the following day, just prior to the tea at 5, given by members of the Union Club in honor of the distinguished guests.

No account of the inauguration festivities would be complete without special mention of the hospitable reception accorded these distinguished guests on Saturday, September 24, shortly after their arrival, by the mayor of Puno and his board of aldermen who graciously bestowed upon them the freedom of the city; or of the splendid gala concert given in their honor by the municipal council, on behalf of the schools and colleges of Puno, in the Municipal Theater that same afternoon, during which, as an act of homage on the part of the student hosts of Puno, Miss Orton was presented with a commemorative album in sumptuous silver binding and illustrated by hand, containing the autographs of all those connected with the entertainment. In addition to the musical numbers, the program included several scenes from the opera *Ollanta*, in itself perhaps the most original musical composition produced in the Western Hemisphere, including the dance of the Virgins in the Temple of the Sun, in which Miss Orton and the Vassar commission in general were deeply interested.



DR. ABEL ITURRALDE, REPRESENTING
THE GOVERNMENT OF BOLIVIA PAYS
HOMAGE TO THE MEMORY OF ORTON.

Miss Orton and her companions, accompanied by Doctor Giesecke, entrained early on the morning of the 27th for Cuzco, stopping one night en route at Sicuani. At Cuzco, where the Government of Peru had reserved rooms for them in the Pullman Hotel, they were lavishly entertained by the municipal authorities and by the university, both faculty and students, including a number of excursions to the various historic and prehistorical ruins in the vicinity, notably those of Saesahuaman. On October 7, they left for Arequipa, stopping on the way at Juliaca, where they were the nation's guests until it was time to leave for Mollendo to embark for the homeward voyage.

From the time Miss Orton and her companions entered Callao Harbor on September 5, until they left Mollendo for home in mid-

October they were the guests of the Peruvian Government, with the exception of the short time spent on Bolivian soil when the Bolivian Government claimed them as her honored guests. Their progress was nothing less than royal. The Chief Executives of two sovereign nations, ministers of state, diplomats, legislators, university rectors, distinguished savants, the civil and military authorities, citizens and simple country folk—Peruvian and Bolivian alike, vied with each other in extending every possible courtesy and hospitality and in honoring the memory of that intrepid Americanist who 45



Courtesy of Sr. Eduardo S. Arenas.

THE OFFICIAL COMMITTEE RETURNING FROM ESTEVES ISLAND.

Note the terminal point of the bridge of "balsas," the native boats made of closely woven reed, upon which passage from the mainland to the island was effected.

years ago, on the waters of the great Incaic Sea, made the supreme sacrifice on the altar of science.

Even before disembarking at Callao they were cordially welcomed by the Government of Peru, a welcome which was repeated and emphasized later in Lima by the Minister of Foreign Affairs, Dr. Alberto Salomón, who informed them fully as to the measures taken by the Government for their comfort and entertainment during their stay on Peruvian soil and, more particularly, those relating to the commemorative ceremonies and their proposed visit to La Paz, Bolivia, just prior to the latter.

From Lima, Miss Orton and her companions, accompanied by Mr. Albes, Secretary of the United States legation and the son of a former

editor, recently deceased, of the PAN AMERICAN BULLETIN, returned to Callao, where they reembarked on the S. S. *Luisa* for Mollendo, arriving at that port September 8, and leaving by the noon train for Arequipa, reaching the latter as darkness fell. Here they remained until September 16, being very pleasantly and hospitably entertained meanwhile.

On September 16 they started on the 10-hour climb over the Cordillera to Puno, where they were met by his honor the mayor and a group of distinguished citizens of that lofty town, and where they stayed just long enough to be transferred from the train to the lake steamship which was to carry them during the night to Guaqui,



THE RETURN TRIP FROM ESTEVES ISLAND PRIOR TO BOARDING THE TRAIN FOR PUNO.

Bolivia, 125 miles distant. Thence by early morning train they started for La Paz, which they reached at noon of the 17th, and where they were met by Mr. Morgan of the United States Embassy and escorted to the Hotel Paris, where rooms facing the plaza had been reserved for them.

During their stay in La Paz they were most hospitably entertained, not only by representatives of the Bolivian Government but by members of the American and other clubs, by Doctor Posnansky, president of the Geographical Society of Bolivia, and Doctor Abel Iturralde, who was officially appointed to represent Bolivia in the actual commemorative ceremonies and to accompany them on the return trip to Puno.

On the return journey, which was made in a special train furnished by the Bolivian Government, a stop was made at Tiahuanaco, where

Miss Orton and her companions had the privilege of viewing these remarkable ruins in the company of that eminent archæologist, Doctor Posnansky. Several stops were also made during their passage of Lake Titicaca, notably that at Carabuco, where Professor Orton, ill and suffering, embarked on the last stage of his last journey.

Puno was reached on the morning of September 24, and from its spacious bay our travelers caught their first glimpse of Esteves Island. The party was met aboard the steamer by the mayor of



Courtesy of Sr. Eduardo S. Arenas.

BANQUET GIVEN IN GOVERNMENT HOUSE BY HIS HONOR THE PREFECT OF PUNO, IN THE NAME OF THE PRESIDENT OF PERU, IN HONOR OF MISS ORTON AND THE OFFICIAL COMMISSIONS CONNECTED WITH THE ORTON INAUGURATION CEREMONIES.

Puno and his military aide, who, in the name of the President of Peru, welcomed them most cordially and who, after landing, conveyed them by automobile to a beautiful new residence, fully and luxuriously furnished, which had been reserved by the Government for occupancy by Miss Orton and her two companions during their stay, and in which awaited them a full complement of servants, including, among others, a cook and a butler. Their comfort and convenience were still further facilitated by a young military officer who, with his orderly, had been designated to attend the American ladies while they were in residence and to accompany them whenever they walked abroad. It is needless to say that such exceptional marks of

thoughtful courtesy and generous hospitality were greatly appreciated by the somewhat travel weary recipients thereof.

At 4 o'clock that afternoon the prefect with a committee of distinguished citizens appeared at the door to escort them to the city hall, where, as has already been stated, they were formally welcomed to the city and, as honored guests of the Nation, given the freedom thereof, this interesting and *simpática* ceremony being closely followed by the gala musical literary entertainment in the municipal theater already described several pages back.

A word before closing as to the monument itself, which is the work of John Ettl, the well-known American sculptor, whose studio is in New York City. The monument, which is probably the first attempt of any American artist to adapt his work to the Incaic style of architecture, is constructed of pink New Hampshire granite and is about 9 feet high. It is circular in design with a square plinth and, in general, resembles a tomb rather than the traditional monument. The entire monument is of masonry, the surface treatment of which is similar to that in the citadel of Ollantay Tampu, the sunken panel at the front being strongly reminiscent of the doorways to be found in the ancient ruins at Tiahuanaco. It is this panel which bears the dedicatory inscription, the latter reading as follows:

(Original.)

EN MEMORIA DE JAMES ORTON,
SABIO NORTE-AMERICANO, AU-
TOR, PROFESOR, EXPLORADOR DE
LA AMÉRICA DE SUR QUE MURIÓ
CRUZANDO EL LAGO TITICACA EL
25 DE SEPTIEMBRE DE 1877 Y
CUYOS RESTOS REPOSAN BAJO
ESTE MAUSOLEO ERIGIDO POR
LAS EX-ALUMNAS DE VASSAR
COLLEGE.

(Transation.)

IN MEMORY OF JAMES ORTON,
AMERICAN SCIENTIST, AUTHOR,
EDUCATOR, EXPLORER OF SOUTH
AMERICA, WHO DIED CROSSING
LAKE TITICACA SEPTEMBER 25,
1877, AND WHOSE REMAINS RE-
POSE UNDER THIS MONUMENT
ERECTED BY THE ALUMNÆ OF
VASSAR COLLEGE.

The sculptor has shown excellent judgment and a fine sense of proportion in his treatment of the cap, each course of which contributes to the severe elegance and sober dignity of the memorial, which, as a whole, is in entire harmony with its setting and constitutes an eminently fitting monument to the great Americanist to whom it is dedicated.

In conclusion, the BULLETIN wishes, on the approaching first anniversary of the dedication, to felicitate anew the Vassar Alumnae Memorial Committee on the successful achievement of their noble undertaking—particularly its chairman, Mrs. Alice P. Sanford, to whose untiring courage and zeal that achievement is so largely due;

Miss A. B. Orton and her companion Miss Ellen W. Farrar who, together with Mrs. Sanford, represented Vassar College and its alumnae (and, in a larger sense, the United States) with such dignity and grace during the actual dedication ceremonies; the Governments of Peru and Bolivia, whose friendly, generous, and sympathetic cooperation made the memorial possible; Messrs. Grace & Co., who so kindly transported the monument from New York to Mollendo free of charge; the Southern Railway of Peru, which gratuitously conveyed the monument from Mollendo to Esteves Island and there prepared the foundation; the Prefect of Puno and his distinguished colleagues; the press of Peru and Bolivia for their generous cooperation; and, finally, and above all, the kindly and hospitable peoples of Peru and Bolivia, who have once more demonstrated in such pleasant fashion their friendship and respect for the sister Republic in the North.



WHERE ORTON SLEEPS.

* * * There within the realm of cloudland, where the condor makes his home,
Where the mighty snow-capped Andes their eternal vigils keep,
Mid the scenes of untold grandeur, where his fancy loved to roam,
We may leave him safely resting in that quiet dreamless sleep.

—Edward Albee.

THE PROGRESS OF RADIO COMMUNICATION IN VEN- EZUELA¹

BY GEORGE H. CLARKE.

DURING the past year Venezuela has made notable progress in the field of radio-communication, having finished the installation of the first portion of her contemplated chain of radio stations throughout the republic.

The radio service of Venezuela is under the control of the Minister of Promotion (Ministro de Fomento), who has general charge of new developments in the country, as wire and wireless communication, mines and oil concessions. The present minister, Dr. Gumersindo Torres, is a man of far vision with great faith in the value to Venezuela of the more modern development in the general field of communication, and it is due to his far-sighted policy that Venezuela has taken her place at the head of South American nations in the development of a national radio-communication system. The administration of the wire and radio service as a whole is under the charge of Gen. Tobias Uribe, Chief of Communications, under whose wise guidance the not inconsiderable problems which always attend the opening up of a new branch of service are rapidly being cleared up. The technical control of the stations, their installation and maintenance are under the charge of H. Eichwald, a radio engineer of Venezuela whose technical training was obtained in the United States of America. Mr. Eichwald is also in charge of the National School for training operators for the wireless service of the country.

The most important and the most fully equipped station of the group developed under Minister Gumersindo is that installed at Caracas, the capital of the country. This station has administrative control over all the others, and within it are located also the National Radio School, the receiving apparatus for long wave-reception, such as press, and a direction-finder, in addition to the transmitter and receiver of the station proper. The station is located on one of the smaller hills, overlooking the city and although far from water of any kind and entirely surrounded by mountains, it is remarkably efficient in transmission and reception. The station building is officially known as El Polvorín. Years ago it was used for the storage of

¹ The Wireless Age, January, 1922.

powder for the army, but its three-foot-thick walls now are chiefly useful for sound-insulation. The view of the city nestling in the valley below is especially beautiful from this site, and it is no wonder that it is one of the show places of Caracas.

The antenna system consists of two steel towers, each 50 meters high, a four-wire flat-top antenna running the entire distance of one hundred meters between towers, and a vertical cage antenna of six wires with cross-shaped wooden separators, running from the nearer tower down to the station. The flat-top antenna is used for all long-



Courtesy of The Wireless Age.

RADIO STATION AT CARACAS, SHOWING THE MODERN TYPE OF TOWERS INSTALLED.

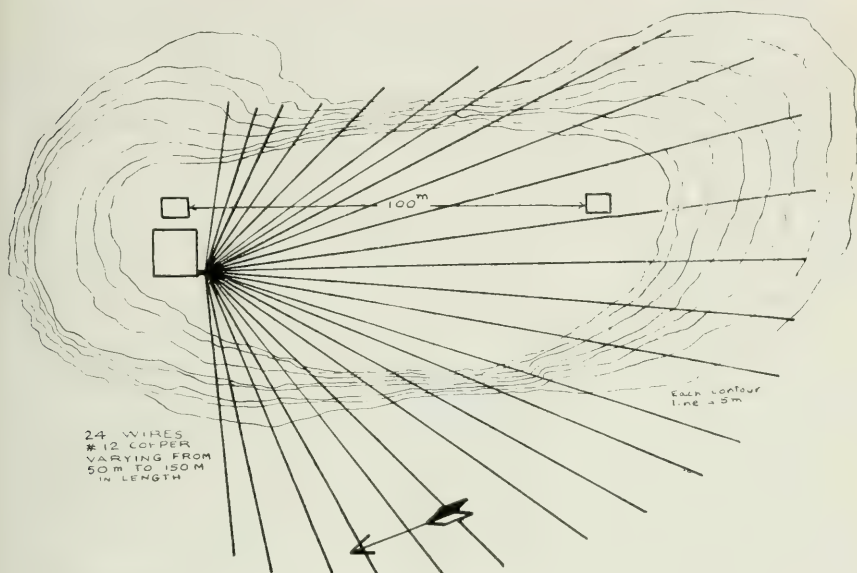
wave transmitting and receiving, while the cage antenna is provided especially for work with ships on 600 meters.

The ground system consists of twenty-four copper wires, radiating from the station under the antenna and adjacent to it. These wires are buried a short distance in the earth for mechanical protection. This does not provide a sufficiently low resistance ground, however, and the Government is planning to have multiple-tuning attachments to the antenna installed in the near future in order to increase the efficiency of the set.

Power is obtained from the city electrical power supply of three-phase 50-cycle current. This energy is furnished by a hydroelectric plant in the mountains midway between Caracas and the seaport of La Guaira, and gives very reliable and constant service. A motor generator is used to provide the high-voltage direct current necessary for the transmitter, and another is installed to furnish direct current for charging storage batteries for the station.

All the wiring in the station is run in trenches cut in the concrete floor, with iron floor-plates over the trenches for mechanical protection. All wiring is done with lead-covered cable, the lead sheathing being grounded at intervals. Single conductor is used throughout.

The radio apparatus proper at this station was supplied to the Venezuelan Government by the Radio Corporation of America. The transmitter and its associated apparatus was designed by the General Electric Co., and represents the standard type developed as a result of war-time experiments for the United States Army and Navy. The receiver was designed similarly to conform to military require-



Courtesy of *The Wireless Age*.

GROUND SYSTEM AT THE CARACAS RADIO STATION.

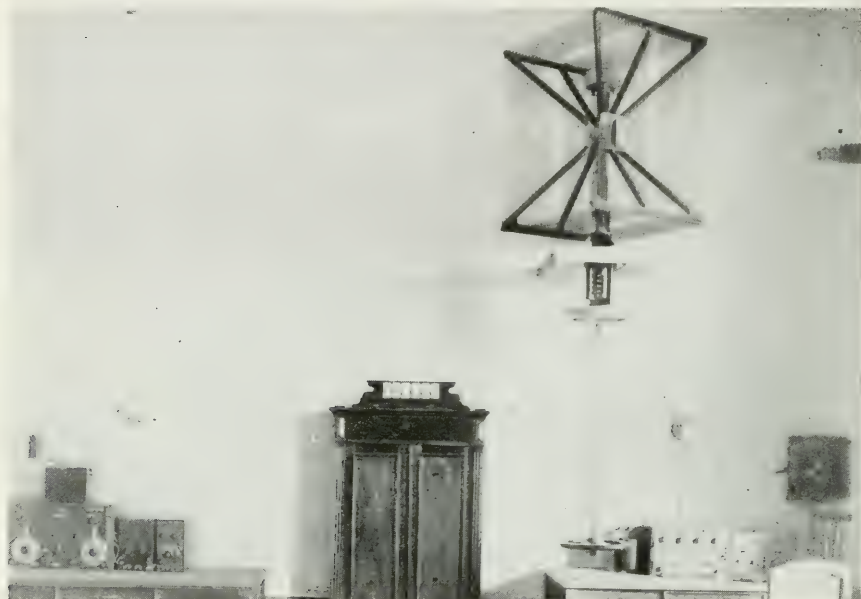
ments and was developed in the factory of the Wireless Specialty Apparatus Co.

On one side of the station is located the transmitter and its associated receiver, with the motor generators and the protective device against high-frequency kick-back mounted near by. Here is also mounted a transformer switchboard with two transformers, associated control devices, and transfer switch, for furnishing either 12 volts or 22 volts alternating current to the filaments of the pliotrons used in the transmitter, thus permitting the use of either of two types of these devices.

The transmitter is a $3\frac{1}{2}$ kilowatt input continuous-wave vacuum-tube apparatus. Six power tubes are used in the set, and it is adapted to work with either radiotrons of the UV 205 type, for which the set was originally designed, or equally well with the long-life power

tube recently developed and known as radiotron UV-204. The former tube uses a filament voltage of 22 volts, and the latter, of 12 volts, hence the filament-transformer switchboard referred to in the preceding paragraph.

Six wave lengths are provided for in the transmitter, and by means of a wave-changing switch any one of six entirely separate coupling coil systems, each for its associated wave lengths, may be selected. No adjustment of any kind needs to be made after the wave-changing switch has been thrown, as all the necessary values of plate and grid



Courtesy of The Wireless Age.

RECEIVING SETS AT CARACAS.

At the left is shown the long-wave receiver, and at the right the radio compass loop antenna and receiver.

coupling coils and of antenna variometer have been made in advance during the installation of the set. Using the main antenna wave-lengths of 825 meters, 950 meters, 1,150 meters, 1,450 meters, 1,650 meters and 1,950 meters can be obtained, and by shifting to the cage antenna, which has smaller capacity than the flat-top, and using the 825 meter position of the wave changer, a wave-length of 600 meters is available. By means of the variometer construction of the antenna inductance wave-lengths considerably shorter and longer than the mean values above given can be attained. Thus if the antenna that is erected happens to differ from the constants of the specified one, the wavelength can be readjusted to any desired value by antenna inductance variation.

For working on continuous waves for telegraphic communication and on I. C. W. using the grid chopper for damped waves, the six radiotrons are thrown in parallel. When radiotelephony is desired a single movement of a switch divides the tubes into three oscillators and three modulators, constant-current or plate modulation being used. Speech-varied currents from the microphone supplied with the set are transformed for higher voltage, amplified by a vacuum tube amplifier, and then suitably impressed on the modulator grids.

For damped wave working with ships, the grid circuit of the 6 oscillating valves is periodically interrupted by a motor-driven commutator, and a very pleasing 400 cycle note results. The grid chopper is located on the table near the main key of the operator, and by means of two switches, one to start and stop the chopper motor and the other to short-circuit the commutator when C. W. is desired, the operator has easy control of the character of the waves emitted.

The control of the transmitter is very simple. The three main operating switches, namely, (1) send, ground, receive; (2) C. W.-telephone, and (3) wave-changing switch, automatically make all necessary connections for their respective functions. The parts are quite rugged and have stood up well in service.

All necessary protection has been provided for the set. Around the 2,000-volt direct-current generator which delivers plate current to the power tubes is a protective device consisting of a number of aluminum cell lightning arresters in series. A protecting spark gap is located across the filament and grid busbars in the transmitter proper. Each plate circuit has an individual fuse, and a main fuse is placed in the supply lead from the high voltage generator. Filament fuses are provided for either voltage of supply for the filaments.



Courtesy of The Wireless Age.

RADIO STATION AT PUERTO CABELLO,
VENEZUELA.

By feeding the filaments with alternating current, the life of the power tubes is considerably increased. The middle point of the low-voltage secondary of the filament transformer is grounded, thus taking away the alternating current hum which otherwise would be impressed on the created oscillations. A further refinement in this set is the use of a filament voltmeter to indicate the voltage on the filament, rather than an ammeter to indicate filament current. The resistance of the filament changes throughout its life, and constant current through it would tend to reduce its life greatly, but by keeping the terminal voltage constant equal usage of the filament during its entire life is guaranteed.

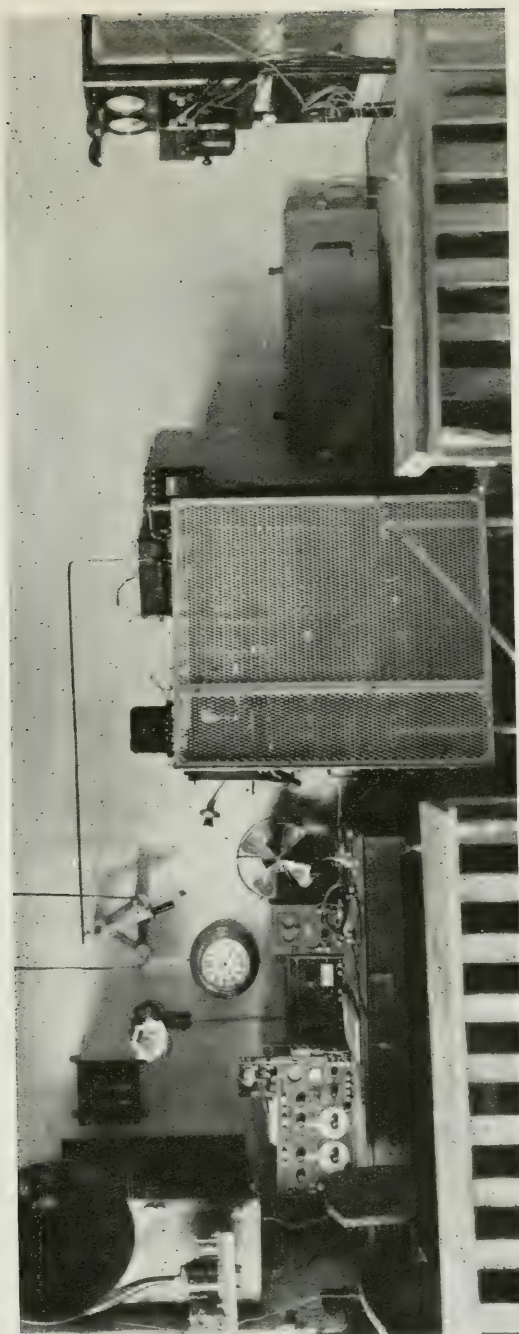
The receiver used with this set is the standard type of the Wireless Specialty Apparatus Co., known as UR-1420. Two amplifiers are provided, a two-step tone-frequency amplifier model UR-1000 A, and a six-step radio frequency detector tone frequency amplifier. A magnavox is also included as part of the equipment, and with the six-stage amplifier, signals from distant countries, hitherto inaudible, can be heard a mile from the station.

The Radio Corporation C.W. transmitter gives from 12 amperes at the shorter waves to 9 amperes at the longer waves, at full power. On the auxiliary antenna, about 10 amperes C.W. and 8 amperes "chopped" can be obtained. With this radiation, using C.W., day signals at Puerto Cabello are extremely loud without amplifier, and static has to be exceptionally severe to interrupt communication. Distances of about 600 kilometers, over mountains, to the inland stations, are regularly covered by day. With the grid chopper, distances as high as 300 miles have been attained.

Some trouble was experienced at first with the grid chopper signals, when ships fitted with crystal detector only were doing the receiving. At first it was feared that the efficiency of transmission was at fault, but later it was proven that the fault lay in the sharper tuning required even for I.C.W. transmission as compared with ordinary spark sets. As soon as the ships learned the necessity for exact tuning, satisfactory distances began to be attained.

The telephone range of the set is about 100 miles over land. A radio-telephone concert to ships at sea is given every day by Mr. Eichwald, usually on 1,100 meters, and on a recent trip of the steamship *Caracas* the writer had the privilege of listening in "on the other end" of the music. The modulation was beautifully clear and distinct, comparing favorably with the best hitherto heard.

The "chopper" note is a beautiful one, pitched at about 400 cycles, and rich in overtones, resembling the note obtained with a well-adjusted nonsynchronous gap running on commercial frequencies of supply, a note which practical operators always have considered ideal for carrying qualities



Courtesy of The Wireless Age.

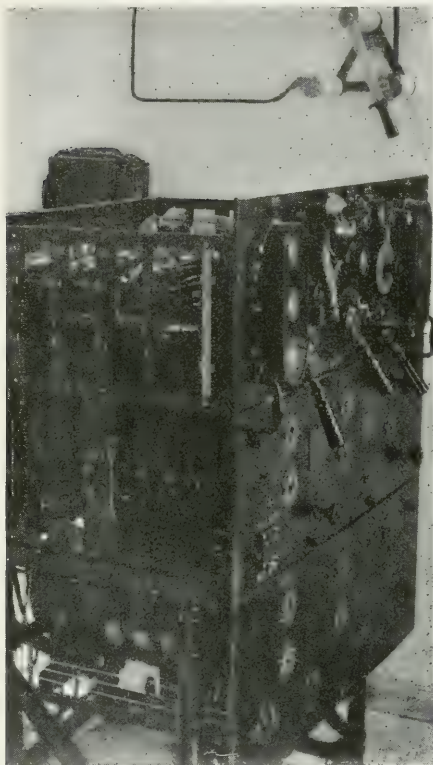
INTERIOR VIEW AT THE PUERTO CABELLO STATION.

Showing short-wave receiver and loud speaker, transmitting set, generators, protective device against high-frequency kick-back, transformer switchboard with two transformers, associated control devices, and transfer switch for 12 or 22 volts supply to power tubes used in transmitter.

On the other side of the building at the Caracas installation is located the long-wave receiving apparatus, fitted with both two-stage tone amplifier and six-stage combined radio and tone amplifier with detector intermediate. This receiver is especially used for copying press sent out from the naval stations at San Diego or Balboa. Venezuela is very much interested in the happenings of her northern sister, and the radio news copied before dawn by Mr. Eich-

wald becomes an important part of the daily paper which later risers read with interest. Near by is one of the latest models of direction finders, a standard shore station type supplied by the Radio Corporation. This is used at present primarily for instruction in the radio school. The Government is considering the problem of installing two radio directional stations on the coast for the benefit of navigation, but before any decision is made on this the operation of the Caracas apparatus will be studied for some time.

The businesslike appearance of the interior of the Caracas station and the neat character of the wiring and the arrangement of apparatus reflect great credit on Mr. Eichwald, who installed it, as well as upon the Government for authorizing such a modern and in every way complete



Courtesy of The Wireless Age.

CONTINUOUS-WAVE TRANSMITTER,
PUERTO CABELLO.

outfit. From a battery-charging switchboard in a fume-proof room with lead-covered wires running in trenches to all the receivers and amplifiers, to the neat, red-painted copper tubing from the entering insulator to the sets there is no installation in North America which can claim to be better than this one and few that can equal it. Venezuela is to be congratulated on having a station of such a modern type and in taking pains to make an installation which not only delights the eye but also insures the best operation.

The outlying stations of Venezuela, though not so complete as Caracas, show the same painstaking care. The buildings are neat structures of concrete with red-tiled roofs, and are beautiful and well laid out for their intended use. They are modern in every way from radio set to shower bath.

The stations so far installed consist of spark sets at several of the seaports where the main business is communication with ships; arc sets in the interior towns for internal communication and vacuum tube sets providing both radio-telegraph and radio-telephone service at the more important cities in the thickly settled portion of the country. A list of these stations is given below with interesting data concerning each one. It will be noted that new call letters assigned by the Berne International Radio Bureau have very recently gone into effect, superseding the old call letters temporarily assigned by the Venezuelan Government.

Location of station.	Old call.	New call.	Type of set.	Power of set. (kilowatts).	Type of communication.
Maquetia.....	HRH	AYG	Spark.....	5	Damped wave.
Caracas.....	HRE	AYA	Vacuum tube.....	3.5	Continuous wave, damped wave, and radiotelephone.
Maracay.....	HRF	AYB	do.....	3.5	Do.
Puerto Cabello.....	HRK	AYC	do.....	3.5	Do.
Maracaibo.....	HRI	AYF	Spark.....	5	Damped wave.
Margarita Island.....	HRM	AYE	do.....	2	Do.
Barquisimeto.....	HRB	AYH	Arc.....	5	Continuous wave.
San Cristobal.....	HRG	AYD	do.....	5	Do.

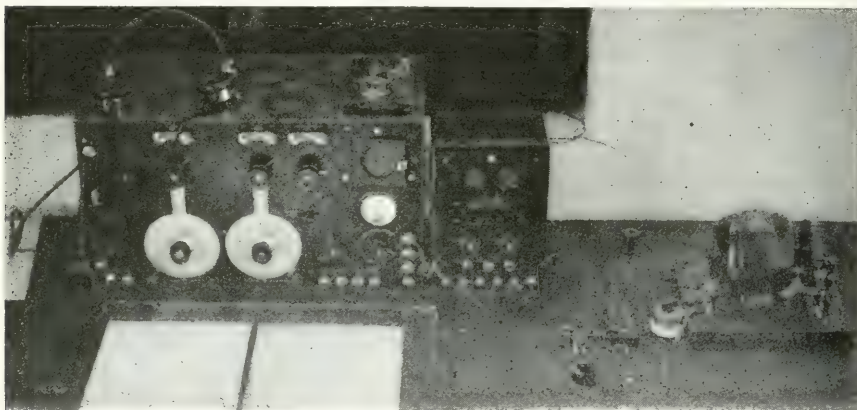
Most of the spark stations operate on wave lengths of 600 meters, although Maquetia and Margarita Island use waves up to 1,200 meters for their interchange service. The continuous-wave stations use a standard calling wave of 1,600 meters, and individual communication waves either side of this value. All stations are fitted with wave changers so that the use of a calling and a communicating wave is easy from the engineering standpoint.

The Maracay and Puerto Cabello installations are counterparts of Caracas, as to antenna, transmitter, and receiver. At both these stations the transmitting as well as the receiving equipment was supplied by the Radio Corporation of America.

Maracay is situated inland, surrounded entirely by mountains, and is more bothered by afternoon thunderstorms than any of the other stations. Lake Valencia, a large, beautiful body of water is near by, and the soil below the radio station is always moist; in fact, a few feet below the surface one always finds water. A very complete radiating system of copper wires forms the ground here and the ground resistance is as low as could be obtained without auxiliary tuning devices.

At Puerto Cabello, the station is only a few feet from the water's edge, and a grid of copper wires under the antenna and running out into the sea to stone anchorages some 50 feet out insures a rather good ground connection. With the constant sea breeze on one side and the beautiful Floral Park of Cabello on the other the station is situated about as ideally as a station well could be.

The Maquetia and Maracaibo spark stations are both very near the water and have the best copper-wire radiating grounds that the radio engineering talent could provide. The Maquetia station is a very busy one and it is exceptionally efficient. Operators on steamships plying between New York and Venezuela report that Maquetia (or La Guaira, as it is often incorrectly called), does not fade at all during any time of the day, whereas Curaçao, a very efficient and well-installed station in the Dutch West Indies, will at the same time and on



Courtesy of *The Wireless Age*

TYPE OF RECEIVER IN USE AT THE PUERTO CABELLO STATION.

the same wave length, fade to inaudibility. Maquetia is on a narrow ledge of land by the water's edge, backed up by a mountain range rising almost straight up to a height of about a mile. Theorists may work on this problem at their leisure.

Our southern sister republic is to be congratulated on the rapid progress she has made to date in the establishment of efficient radio communication. This is not surprising for a land which has hundreds of miles of perfect roads through wild mountain regions and that has a modern hangar with a dozen or so modern airplanes flying daily. After a short breathing spell to knit together more closely the system so far established, it is to be hoped that she will continue in her development along this line with the same pioneer spirit and the same determination as has already been shown. There is still much need in this vast country for further radio service, and Venezuela knows it well. The history of her success will be shown in the next issue of the Berne call book for the radio stations of the world.

DEVELOPMENT OF THE U. S. POTTERY INDUSTRY

By ALEXANDER YOUNG BURSLEM.

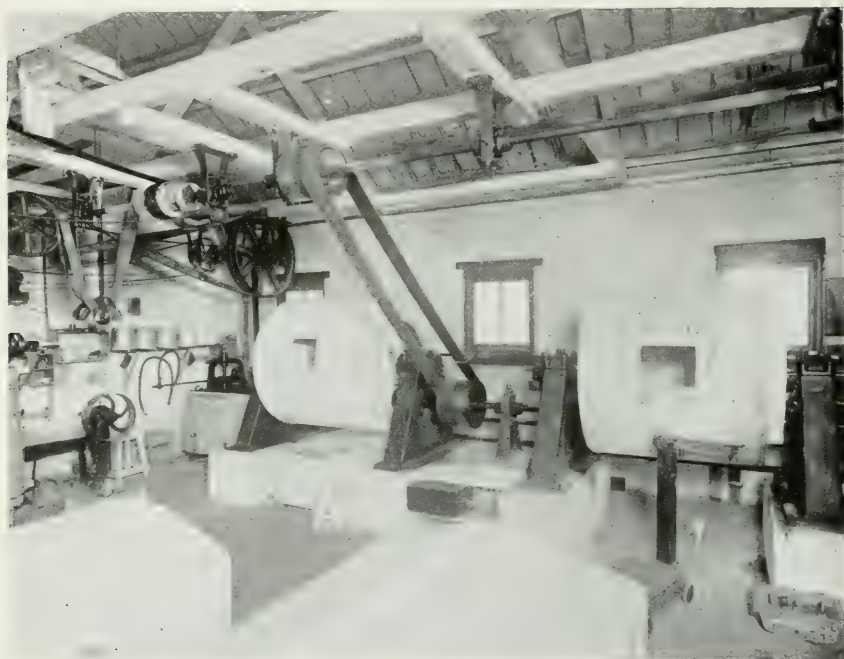
D ID YOU ever consider your dinner plate? What a romance in a common piece of clay! Fashioned from the simple elements of the earth, it rests upon your dinner table, a thing of utility and beauty. Turn it over and observe the queer stamp of the potter. It may be French or German. It may be the mark of the famous Staffordshire china, originated by an English potter more than a century ago, or more probably the stamp of a great American pottery of to-day.

Perhaps nowhere in the world has the pottery industry grown as rapidly as it has in the United States. In the colonial days the tables were set with pewter or wood. What little pottery found its way into the early American homes was brought over by the Dutch or English settlers. Before the end of the eighteenth century a few small potteries, making coarse stoneware, had been established. But it was not until the early part of the nineteenth century, when a famous line of English potters migrated to America, that pottery ware of any commercial value was made. A number of these pioneers settled at Trenton, N. J., and in less than 60 short years that city became the center of the pottery industry in the United States.

The rapidity with which the industry grew in Trenton is remarkable. The manufacture of pottery began there in 1852, when Messrs. Taylor & Speeler made yellow and Rockingham ware. Just a year later the first cream-colored ware to be made in America was produced by William Young & Sons, with Messrs. Millington and Astbury. William Young had learned his art at Hanley, England. In 1868, James Tams, a Staffordshire potter, erected a pottery in Trenton, where he made granite and stone ware. Only three years had passed since Tams had begun his pottery when Thomas Maddock formed a partnership at Trenton, which was to begin the long line of sanitary earthenware in America. The success of these men soon encouraged others, and one after another new potteries were erected in Trenton for manufacturing practically every grade of pottery ware. In late years, the name of Walter Lenox stands out most prominently because it was he who, after years of failure in his pottery at Trenton, succeeded in developing one of the finest grades of artistic china in the world. So it was with such potters as these, many of them bring-

ing with them the traditions of the famous Josiah Wedgwood who had developed their art in Staffordshire a century before them, that Trenton justly deserved to be called the "Staffordshire of America."

In recent years the industry has spread to other parts, and now potteries flourish in Ohio, West Virginia, Pennsylvania, New York, Indiana, and even in California. In the Middle West, especially around East Liverpool, Ohio, the industry has grown rapidly, until now Ohio ranks first in the production of pottery in the United States. Western enterprises now vie with those in the East in the manufacture of clay products.



Courtesy of Lenox, Incorporated, Trenton, N. J.

BLUNGERS FOR GRINDING THE MATERIAL OF WHICH THE CLAY IS COMPOSED.

Now let us turn again to our plate on the dinner table. What is it made of? The materials used in the making of this dish are of the earth itself. The three chief constituents of practically all pottery ware are clay, feldspar, and flint, and it is the degree of skill and experience of the potter in combining these elements that determines the quality of his product.

Clay, or, to use the technical name, silicate of aluminum, is formed by the decomposition of granite rock. It is found in every part of the world in different degrees of purity and impurity. At the beds it is refined by a process consisting mainly of washing and drying. It is plastic, and can be molded into any conceivable form. When

POURING "SLIP" INTO THE
MOLD.

The man at the right is molding teapots
out of "slip."



dried or baked in a fire it retains its shape. Ball clay, or "blue" clay, as it is often called because of its dark color, is used in the making of the best grades of ware. Possibly the best ball clays are dug in Cornwall and Devonshire, England. Florida clay, another variety, although not so plastic, produces a ware of good quality which, when fired, burns to a cream white. Clay beds in Georgia, Maryland, and the Carolinas furnish much of the raw material for pottery in the United States.

Feldspar is a widely distributed rock. When under fire it fuses to a glassy consistency. Its chief utility is that it serves as a binder



Courtesy of Lenox, Incorporated, Trenton, N. J.

CARRYING THE WARE INTO THE KILN. THE MAN AT THE LEFT IS CARRYING A SAGGER ON HIS HEAD, FILLED WITH WARE.

with the clay. It does not require the preparation that is necessary in the refinement of clay, and is brought directly from the mine to the factory, where it is pulverized and dumped into bins ready for use.

Flint is another rock, composed of about 98 per cent silica. Much of the flint used in this country for the manufacture of pottery comes from the coast of France. A story goes that its use was discovered accidentally by an English potter named Astbury. Astbury is said to have been traveling to London on horseback when the horse's eyes became infected. An innkeeper on the way suggested

the use of flint stone, which he burned in the fire and afterwards blew the pulverized stone into the horse's eyes. Astbury was struck with the ease with which the stone was reduced to a white calcined powder and determined to experiment with it at his pottery. The flint proved to be a valuable addition to his materials, because of its excellent refractory quality, and this ingredient has been used in potteryware ever since.

The composition of these materials is called the "mix," and as each potter has developed his own methods in combining these



Courtesy of Thomas Maddock's Sons, Trenton, N. J.

INTERIOR OF A KILN.

Workman piling "saggers" containing ware ready for the first firing.

elements, the mix is usually a secret formula. According to this formula, the mix is carefully weighed. It is then thrown into a blunger, a tub about 10 feet in diameter, one-third filled with water, where, for several hours, it is churned, until the clays are dissolved. At this point the mix resembles thick buttermilk. Then it is run off, to be sifted through fine silk lawn, about 120 meshes to the inch. It is then drawn over a magnetized trough, where any particles of iron in the fluid clay are removed. From this it is pumped through a series of filtering presses. Once through these presses, it is put

through a pug mill, a heavy upright cylinder through which it is compressed. The pug mill eliminates the fine air bubbles, the clay being then ready for the potter's use.



Courtesy of Lennox, Incorporated, Trenton, N. J.

DIPPING A PLATE INTO THE GLAZE.

This is one of the most important operations in the manufacture of high-grade china.

It will be seen that a great part of the potter's art is in the preparation of his clay. This done, the "body," as it is called, finds its way to the "thrower's" bench, where it will be worked into the particular shape of the piece to be made. Throwing is the oldest

process in the shaping of clay. This requires the use of the ancient "potter's wheel," which is a simple disk revolving horizontally. A lump of clay is thrown upon the wheel and, as the wheel spins, the thrower shapes the clay. Most of the potter's wheels to-day are turned by electricity or steam.

Perhaps a more common method of shaping clay is by "pressing." Pressing involves the use of a mold, which is the exact shape of the piece desired. The soft clay is pushed into or upon a mold. Then the mold is released from the clay. The object is formed by taking on the shape of the mold.

Since the mold is of importance to the potter in this process, we must stop briefly to consider it. To make the mold, an exact sample of the piece to be made is first modeled in clay, whereupon a plaster cast is taken of the model. This plaster cast is the mold. For pieces of complicated shape, more than one mold must be made, each mold shaping a separate part.

In order to preserve the original model for the making of further molds, a plaster model is made from the plaster mold. The non-shrinkable plaster model will permit the making of any number of "working molds."

Another method of shaping ware is known as casting. This method is employed principally in the manufacture of small wares. By this process the clay, which has been reduced to a thin, fluid slip, is poured into the plaster mold. The water is quickly absorbed by the plaster, and the deposit of clay remains on the inside of the mold. The thickness of the piece is determined by the time that the slip is allowed to remain in the mold. When the desired thickness is obtained, the remaining slip is poured from the mold, leaving merely the shell of clay. When sufficiently hard the mold is separated and the piece is ready for finishing.

The "dust process" is still another method of shaping ware. By this process clay dust, with just enough moisture to bind it, is pressed into steel dies. Most of the "hot" and "cold" buttons which one finds in every modern bath room are made in this way.

After the piece has been shaped by any one of these methods it is smoothed and finished. When it has become sufficiently dry so that it can be handled without cracking it is taken to the "green" room. The green room is a large storeroom lined with racks or shelves, where the ware is kept until it goes to the kiln for its first firing. Here also the worker is checked on the number of good pieces he has made. Ordinarily the ware remains in the green room for about three days.

The ware is now ready to be "fired," or baked, so that it will become hard, and to be fired it must be placed in a kiln. The kiln is a huge cone-like brick chimney, with an inside diameter of from 16 to 18 feet. About its circumference at floor level are a number of fire

holes. It is usually 20 feet or more in height. Toward the top it is drawn in somewhat like the neck of a bottle. This neck serves as a vent for the fire and smoke during the process of firing. In one side is a large opening, or door, through which the ware is carried. Before the ware is placed in the kiln it is packed in saggars, or large fire-clay containers. In the illustration the workman is seen piling the saggars, filled with ware, inside of the kiln. The proper placing of the ware requires no little skill. When the chamber has been filled the large door is then bricked up and the fires are lighted underneath.



Courtesy of Lenox, Incorporated, Trenton, N. J.

EXHIBITION ROOM OF A GREAT AMERICAN POTTERY, WHICH IS CONSIDERED TO BE ONE OF THE FINEST IN THE WORLD.

The burning of the kiln is a slow process, as both the heating and the cooling must be gradual. About 24 hours are required for the temperature to reach 1,500 degrees Fahrenheit, at which point the fire is quickened until the temperature rises to 2,000 or even to 2,600 F. The fireman, whose duty it is to care for the kiln during these stages, manages his temperatures by means of "test holes," which are arranged at different points around the kiln. From these test holes the fireman, from time to time, draws sample pieces of ware, placed in the kiln for that purpose. By these test pieces it is possible to tell the effect of the fire at any time in a particular part of the kiln. In addition to these little samples, "cones," which fuse at certain set temperatures, according to their composition, are used.

In this way the fireman is able to determine when and to what extent he must increase or check his fires. The pyrometer, an electrical instrument capable of measuring extreme temperatures has recently been added to the means already used to ascertain the heat developed in firing a kiln.

When the ware has had its first firing it is called "biscuit." After it is drawn from the biscuit kiln it is taken to the biscuit wareroom, where it is carefully examined and all roughness eliminated by careful cleaning and scouring. Trade-marks or other stampings are usu-



Courtesy of Lenox, Incorporated, Trenton, N. J.

ANOTHER PART OF THE SAME EXHIBITION ROOM.

ally affixed at this stage. The ware is then passed on to the dipping room, where it is dipped into the glaze solution by an expert operator known as the "dipper." After dipping, it is taken to the drying room, where it remains for about 24 hours.

The glaze is made by the composition of flint, spar, oxide of lead, boracic acid, and sometimes other ingredients. These materials are put into the kiln and fired into a solid mass. This is broken up and mixed with other materials, then ground in water for a period of a week or more. When the grinding is finished the glaze has obtained the consistency of cream. In this state it is ready for use.

Now that the ware has received its glaze, it is again packed into the saggars and placed in the "glost" kiln. Here it is fired suffi-



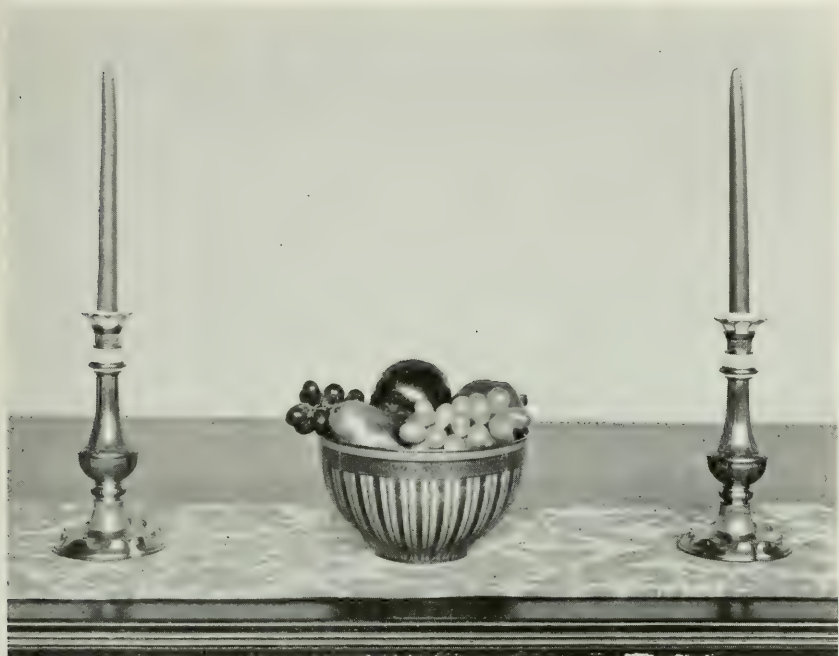
Courtesy of Lenox, Incorporated, Trenton, N. J.

DECORATING FINE CHINA.

Decorators paint the china or apply designs, after the second firing, upon the glazed surface. These artists are well paid.

ciently to permit the ware and the glaze to fuse, so that they become as one material. When the ware comes from the glost kiln it is shining and white as we see it upon the table. This is the finished ware, unless, of course, decoration is to be applied, in which event it is necessary to fire again at a low "cherry" heat. This extra firing is necessary in order to fix the decoration.

The ware, now ready for shipping, is taken to the glost wareroom, where it is carefully inspected. Imperfect pieces are eliminated, and only those which are of the best quality are sent to the packing room,



Courtesy of Lenox, Incorporated, Trenton, N. J.

CANDLESTICKS AND FRUIT BOWL, ETCHED GOLD ON COBALT BLUE GROUND
WITH GOLD STRIPES.

where they are barreled and crated for the customer. Great care is taken in packing, for much can be broken on the way to the market because of improper crating. The ware is therefore packed between heavy layers of straw or excelsior.

We have now traced step by step the long process through which a piece of clay must travel before it is transformed into the shining, lustrous objects which come into the home. We have observed that, in point of time at least, it is not a short way from the clay bed to the shipping room, but one can not imagine, unless one has had the opportunity

of seeing the workings of a pottery at first hand, the remarkable complexity of the ceramic art. Moreover, it is such an uncertain art. Probably no one but the potter knows how many untoward things may happen before he holds the finished piece. This uncertainty may be due either to a lack of knowledge of ceramic properties or to the complexity of the art itself; but the fact remains that the potter is continually facing problems, and it is only by experience and constant attention to every process that he is able to produce such a large proportion of ware of faultless workmanship and unquestioned quality. As the art of the potter has progressed new demands have constantly been made upon him, and these new demands have meant new problems to face,—problems which have varied according to the particular kinds of ware he has been called upon to produce.

Perhaps the most rapid change that has come upon the industry as a whole has been the demand for what is technically known as sanitary potting, or the production of vitreous or solid porcelain appliances for sanitary purposes. It was during the nineteenth century that a movement began in England for the improvement of living conditions. This trend, which finally resulted in the development of modern plumbing, very soon found its way to America, and it was not long before American sanitary ware surpassed even the best that was made in England. From the time when Thomas Maddock made the first sanitary earthenware in the United States, in the early 70's, to the present day, the history of sanitary potting in America has been one of continuous development. In the course of a few short years, American sanitary ware reached a standard perhaps unequaled by any other in the world. Great potteries producing large quantities of sanitary earthenware are now being operated in many parts of the United States. Some idea as to the extent of this particular branch of the ceramic art may be gathered when it is realized that one such pottery alone, at Trenton, produces more than 150,000 pieces of sanitary ware a year. This same pottery pays more than a million dollars a year in wages, alone.

Not alone has the demand for sanitary improvements wrought changes in the pottery industry. Indeed, with the coming of electricity in all its phases, the development of motive power, lighting, etc., the potter has constantly been called upon to produce new objects of utility. Porcelain insulators are required wherever electric wiring is installed. Then, too, with the advent of the automobile, there immediately opened a market for porcelain spark plugs. Here again the potter proved to be an opportunist, for new factories sprang up overnight in order to supply this demand, with



Courtesy of Lenox, Incorporated, Trenton, N. J.

EXAMPLES OF FINE CHINA MADE IN THE UNITED STATES.

Upper: Vase and bowl with Chinese blue band and flowers in raised enamel; vase in white and gold.
Center: Black and gold Chinese tea set with flower decoration in color enamel. Lower: Colonial pattern bon-bon box, cake plate, and hot water or milk jug with blue border and flowers in raised enamel.

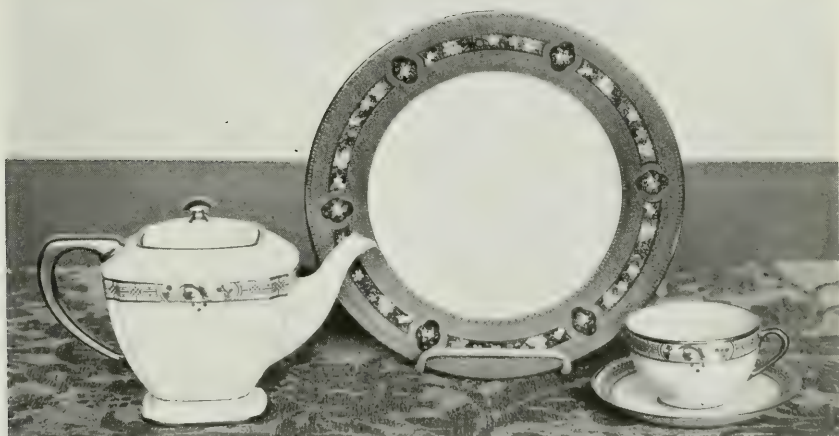
the result to-day that the manufacture of these porcelain fittings constitutes one of the big branches of the industry.

Aside from the manufacture of general household ware, the production of hotel china has been taken over by many firms as a distinct line. So large has this particular business become that some potteries operate almost exclusively to supply the hotel trade. Much of this ware is of very high artistic order, and ranks next to some of the best china made. Potteries in Wheeling, W. Va., Syracuse, N. Y., and Trenton, N. J., supply the large quantities of ware used by the great hostleries of the country, one of the potteries having an output of something like a million pieces a year. It is interesting to note that this demand does not by any means depend upon the building of new hotels, although building adds considerable impetus to the market. The constant wear and breakage in every hotel is in itself enough to keep the producing potteries in steady operation. A master potter in Trenton, for example, estimates that in the course of three years an ordinary hotel completely replaces its stock of china.

Perhaps the most interesting chapter in the story of American pottery has to do with the development of artistic china. Primarily, all pottery was designed for use, but we must not forget that, whatever man has put his hand to, he has modified to suit the pleasure of his eye. The beautiful pottery of France, England, Germany, and Holland testifies to the extent to which the potter endeavors to put art into his craft. The manufacture of artistic china in America is, therefore, not without foreign influence. It is natural to suppose, then, that the early potters who came to America from England were influenced in no small degree by such men as Wedgwood, whose pottery at Burslem, Staffordshire, produced some of the most beautiful china of the period.

For many years, European china, especially that of France and England, was recognized as without equal. Hence connoisseurs of artistic china looked ever for the European stamp, and the word "foreign" was synonymous with "best." Indeed, there is little doubt, nor is it surprising that, with their great background of culture and experience, foreign potters succeeded greatly in making beautiful ware, but it is none the less true that it has been principally against this prejudice that the American potter has struggled. The development of artistic china in America, therefore, has been less rapid than in other lines, but it has been none the less certain.

After the Centennial Exhibition in 1876, the American potter looked to a higher standard of production, and in the fixed determination to realize these ideals, possibly no potter has succeeded so well



Courtesy of Lenox, Incorporated, Trenton, N. J.

EXAMPLES OF FINE CHINA MADE IN THE UNITED STATES.

Upper: Preserve jar and plate, service plate, and coffee pot. Central: Platter, preserve jar, bouillon cup and saucer, and cream pitcher. Lower: Chinese Chippendale teapot and cup and saucer in black and gold design with flowers in raised enamel. Service plate in etched gold.

as Walter Lenox. In his pottery at Trenton, Lenox worked on, despite failure after failure. An invalid, blind, he never permitted himself to become discouraged, but ever kept before him and his associates the one ideal to make beautiful china. He lived long enough to see his achievement, for to-day the product of the pottery he established is recognized as one of the most beautiful wares in the world.

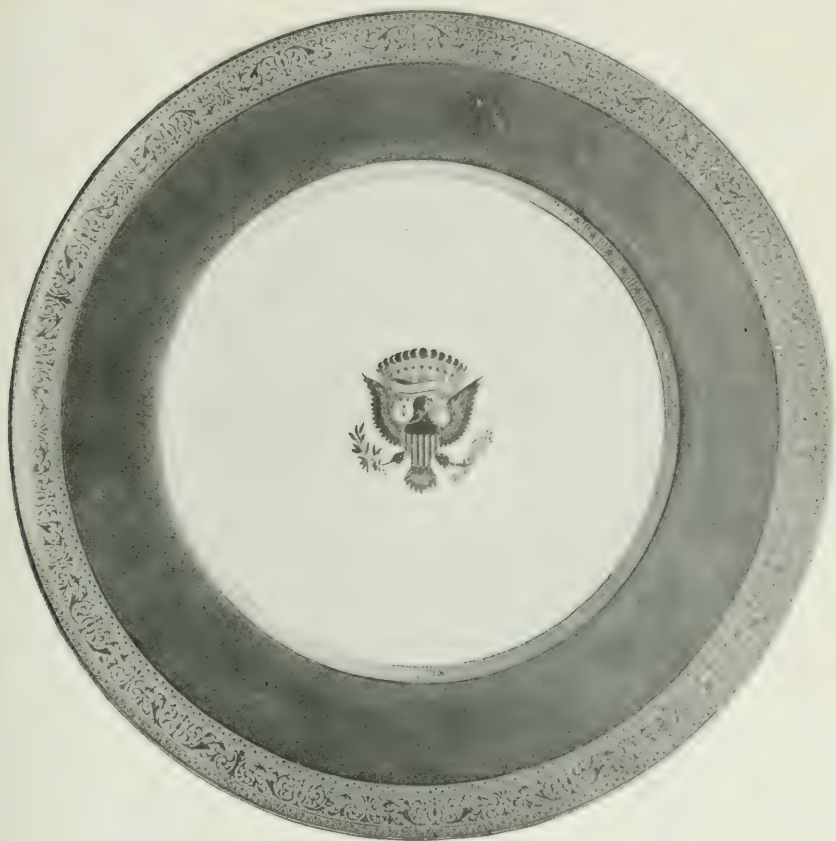
This ware is made in two different bodies, one a bone china and the other a Belleek. The bone china has a soft, dead white tone, while the Belleek reminds one of lustrous ivory. In the production of ware of this grade, the potter has shown a mastery of sculpture, modeling, and painting, with no small knowledge of ceramic chemistry. The designs, which are characteristically American and never bizarre or grotesque, are consistently simple in line and proportion, notwithstanding a conscientious and ceaseless effort to adapt means to ends and combine beauty of line and color with utility. Various themes are executed in rare and beautiful color schemes, with borders etched in gold.

Ware of this sort is obviously expensive. Such decoration is costly. Perhaps 85 per cent of the cost of making china of this quality is due to skilled hand workmanship, for from the time when the clay is first worked to the last process of decoration the ware is handled by the most careful of workers. Some idea can be obtained as to the cost of such china, when a Lenox plate, recently exhibited in the Metropolitan Museum in New York, bore the selling price of \$10,000 a dozen. For this grade of china, prices ranging from \$150 to \$3,000 a dozen are common. Much of this ware is made to order, suiting the particular fancy of the purchaser, and is often designed to match the architectural and color schemes of the customer's dining room.

Little wonder that American china has made a name for itself alongside the best of England or the Continent. The crowning recognition of American-made china came, however, when under President Wilson, Lenox china, for the first time in history, was chosen for the state dinner service at the White House. This White House service is of Belleek, designed with an outer border of conventionalized stars and stripes in gold. On a tinted band is the gold-encrusted seal of the President of the United States. The service consists of some seventeen hundred pieces. The plates are unusually large, the President's seal appearing in the center, as shown in the one here illustrated. It may be interesting to note that this same American china has recently been chosen for the service in the new presidential palace in

Cuba. It is such achievements as these that have placed American-made china on a par with the finest in the world.

We have seen that the development of American pottery has been comparatively rapid. And the industry has advanced in more ways than one. The dusty old insanitary pottery of a few years ago is rapidly being changed into the modern, clean, well-lighted factory.



Courtesy of Lenox, Incorporated, Trenton, N. J

EXAMPLE OF FINE AMERICAN CHINA.

A service plate from the set of china for official use in the White House.

Trade-unions and factory laws have done their work. Dangerous machinery has been screened wherever possible, and dust has been reduced to the minimum. One large pottery in Trenton has established a recreation room where the workers may obtain their noon-day meal, play billiards, or smoke until the whistle blows.

In a technical way, too, the pottery is being modernized. Scientific study of processes is slowly taking the place of old rule-of-thumb methods. The application of these methods is, of course, still highly experimental, for potting, like all ancient arts that have

evolved only through experience, is not readily capable of change. But the American potter has not closed his ears to new ideas. He is always ready to try something new if he is reasonably sure that by so doing he will take a step toward progress.

In recent years, for example, a "continuous" kiln has been designed. Instead of firing the ware in a number of cone-shaped kilns as described, the continuous kiln accommodates all of it. This new kiln is, in reality, a long rectangular building by itself, so constructed that it performs all the functions of several ordinary kilns. The ware passes slowly over a runway which stretches from end to end of the building. When the firing is started, the ware moves along the runway, at the rate of not more than a few feet an hour, the kiln being so arranged that, as the ware approaches the middle of the runway, the temperature increases and as it moves away from the middle toward the end of its journey, the temperature decreases. The economy in time, men and fuel of such a kiln is obvious, and one has been built and is now being tried out in one of the large sanitary potteries at Trenton. Whether it will eventually take the place of the old cone-shape kiln is a question that can be determined only by experience. Such innovations are significant, however, in that they show that potting, even to-day, is still experimental.

Let us now briefly get a bird's-eye view of the industry, so that some idea may be formed as its extent. First, we shall discover that it is an industry limited to a small number of States situated principally in the East and Middle West. Then again we shall see that it is an industry in which a comparatively small number of workers are engaged—small, that is, when compared with other industries of much less importance. We shall find, also, that it is largely a domestic industry, distributing most of its products within the boundaries of the United States.

According to a recent report of the United States Geological Survey, the total value of pottery products in a single year amounted to approximately \$56,000,000. This figure, applying strictly to pottery ware, represents 23 per cent of the value of all clay products. Most of this amount was the contribution of eight principal States, Ohio leading the country, and New Jersey, once the center of the industry, following in second place. The following table showing the largest producing States according to rank has been compiled from the report just mentioned:

	Value of pottery products.		Value of pottery products.
Ohio.....	\$21, 000, 000	Pennsylvania.....	\$3, 000, 000
New Jersey.....	12, 500, 000	Indiana.....	1, 800, 000
West Virginia.....	7, 000, 000	Illinois.....	1, 500, 000
New York.....	4, 000, 000	Michigan.....	1, 100, 000



Courtesy of National Museum, Washington, D. C.

EXAMPLES OF MODERN AMERICAN ART POTTERY IN THE UNITED STATES
NATIONAL MUSEUM, WASHINGTON, D. C.

From this table, it will be seen that the industry has moved westward. Especially about East Liverpool, Ohio, have great potteries located. Some idea as to the extent of localization can be got when we consider that in Trenton alone, there are more than half a hundred potteries.



Courtesy of Thomas Maddock's Sons, Trenton, N. J.

SANITARY PORCELAIN WARE.

Stock of sanitary porcelain in a large factory wareroom.

In this same year there were nearly 400 concerns in the United States reporting sales. The following table has been arranged to show the principle kinds of ware produced:

	Value.
Sanitary earthenware.....	\$12, 600, 000
Porcelain and electrical supplies.....	9, 000, 000
China, bone china, Delft and Belleek.	4, 800, 000
Art pottery.....	800, 000

It will be observed that the production of sanitary earthenware far exceeds that of any other pottery. It is interesting to observe, also, that the production of porcelain and electrical supplies, of very recent origin, has jumped suddenly into second place. From the above chart it would seem, therefore, that American pottery is very largely utilitarian.

Although potting is an important industry, the number of people actually engaged in the production of ware is comparatively small. This is undoubtedly due to the peculiar requirements of the industry

itself. According to the last complete industrial census, there were approximately 27,000 wage earners in American potteries, including both men and women workers. From the report of a survey made by the United States Department of Labor for the year 1919, we find that the average number of hours worked per day for males was 7.1, and that the average earnings per hour were \$0.646. For the females employed in the industry, the average number of hours worked per day was 6.8, and the average earnings per hour \$0.324. These figures, which may be taken as representative of the industry as a whole, are significant, in so far as they show that the working day of the potter is somewhat less than eight hours.

Of all the pottery manufactured in the United States, the greater part is for domestic consumption, only a very small proportion being exported. According to a Commerce Report as recent as January 30, 1922, the foreign trade of the United States in earthen, stone, and china ware was, for the past three years, as follows:

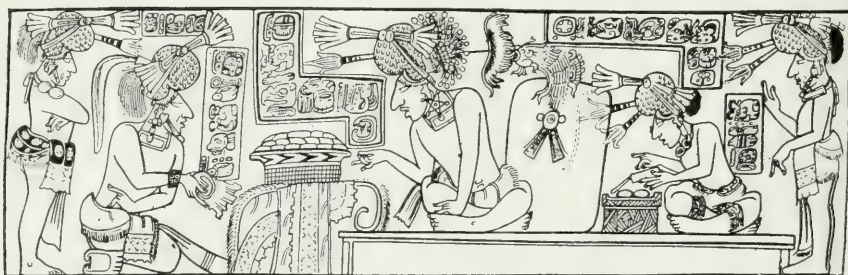
IMPORTS.		EXPORTS.	
1919.....	\$7, 150, 913	1919.....	\$6, 582, 284
1920.....	11, 628, 334	1920.....	9, 397, 623
1921.....	12, 523, 436	1921.....	6, 279, 587

These figures clearly indicate that, while the imports have slowly increased, the exports have remained practically stationary. The following table will show more clearly the chief classes of goods comprised in these figures. It will be noted that bricks and tiles, not strictly pottery ware as we have considered it, have also been included in these totals.

Earthen, stone, and china ware.	Calendar year.		
	1919	1920	1921
IMPORTS.			
China, parian, porcelain, etc.....	\$4, 112, 187	\$6, 697, 039	\$7, 685, 722
Not decorated.....	413, 733	434, 790	666, 486
Decorated.....	3, 698, 454	6, 262, 249	7, 019, 236
Earthen and crockery ware.....	2, 735, 197	4, 256, 744	4, 386, 371
Not decorated.....	384, 359	347, 995	429, 140
Decorated.....	2, 350, 838	3, 908, 749	3, 957, 231
All other.....	302, 629	674, 551	451, 343
Total imports.....	7, 150, 013	11, 628, 334	12, 523, 436
EXPORTS.			
Bricks:			
Building.....	248, 690	382, 814	415, 402
Fire.....	2, 747, 512	4, 200, 266	2, 314, 911
China ware.....	523, 861	816, 817	312, 161
Earthen and stone ware.....	1, 148, 051	1, 241, 938	1, 014, 329
Sanitary earthenware (closet bowls, lavatories, sinks, etc.)....	363, 734	778, 714	535, 506
Tiles, except drain.....	628, 836	1, 025, 083	814, 456
All other.....	721, 600	951, 991	872, 822
Total exports.....	6, 582, 284	9, 397, 623	6, 279, 587

From this table it is obvious that a very large proportion of the imported goods is china tableware, while the chief exported grades are earthen and stone ware. While it is true that nearly twice as much pottery is imported as exported, it must be remembered that the foreign trade in the industry is relatively small, since the largest part of all American-made pottery is retained for home use. At the same time it must be recognized that the importation of foreign goods can not fail to affect the American potter, for the amount imported is just so much lost to the American manufacturing and working potter. Nevertheless, the domestic demand is so great for nearly every grade of the domestic ware, that American potteries, on the whole, are not seriously affected by foreign competition, except when foreign manufacturers periodically flood the American market with ware, under-selling American goods. But even so, the industry has always moved forward.

This element of progress is indeed the connecting thread that runs through the whole story of American pottery. It is a story of rapid development—development chiefly in a utilitarian direction. In the production of artistic china, America has achieved distinction but, true to the chief characteristic of her genius, her greatest achievement in the pottery industry has been the molding of clay into objects that supply the practical needs of life.



Courtesy of the Pan American Magazine.

DESIGN FROM A PREHISTORIC MAYA JAR FOUND IN GUATEMALA.

AMERICAN BUSINESS OPPORTUNITIES IN BOLIVIA

By FREDERICK L. HOFFMAN, LL. D.

Third Vice President and Statistician, The Prudential Insurance Co. of America.

[The following article embodies the results of personal observations of the economic situation in Bolivia, and of the business opportunities afforded by the country to Americans, made by Doctor Hoffman in recent months in the course of a scientific journey through Chile and Bolivia into the upper Amazon Basin, as a member of the Mulford Biological Exploration of the Amazon Basin. Doctor Hoffman's particular work in connection with the expedition was concerned with questions of health, longevity, acclimatization, and sanitary progress in the regions visited.]

BOLIVIA, the third largest of the great Republics of South America, is less known, less understood, and less appreciated in the United States than any other promising portion of the Western Hemisphere. Yet it is, in very truth, and particularly as regards eastern Bolivia, "The Land of Tomorrow." America's indifference amounts to little less than apathy, and apathy at this time is fatuous. With the exception, perhaps, of Peru, no country offers a more friendly welcome to the people of the United States than Bolivia, while none offers better opportunities for American business enterprise on a large scale. The time to take advantage of this receptive mood is *now*. Every other nation is feverishly at work to broaden the sphere of its commercial influence; and once foreign trade and financial interest gain a predominating position, the field is regained for American enterprise only with the greatest difficulty, if at all.

No country has been more maligned than Bolivia. Such a book, for illustration, as Alexander A. Adams's "The Plateau Peoples of South America" is a gross libel upon a country and a people who in their own way are making as brave a struggle to master the elements that control their destiny as we have made in ours. Likewise, the very readable, but wholly misleading, book by Franck, "Vagabonding Down The Andes," conveys a totally false impression, certain to do incalculable harm. A tramp on Fifth Avenue, with a bundle on his back, would fare infinitely worse than did this writer, who insisted upon being cared for, without notice, by people as poor as can possibly be the case. The higher Andes are not a land of plenty or of surplus food products, and it does not help an Indian to be offered the lowest

¹ From *The Economic World*, October 15, 1921.

"reasonable" pay for the little stock of provisions he may have stored for his own use.

It has been my own privilege for some weeks past to see the Andean country from another angle and for a different purpose. I joined an exploration of the Beni River country—broadly, the Amazonian region of Bolivia—to determine, as far as this is at present feasible, the problems of health and mortality, acclimatization and adaptation otherwise, on the part of white Americans and other whites, in the tropics of South America. Such an investigation must needs concern



Courtesy of Juan S. Bowles.

TYPES OF RIVER BOATS ON THE RIO BENI, BOLIVIA.

itself with questions of tropical economics, tropical agriculture, and, last but not least, tropical finance. All these questions, from the tropical standpoint, involve wholly different considerations than when considered solely with reference to temperate latitudes. My investigations thus far have concerned the highlands of Peru and of Bolivia, while at the present time I am, for a few weeks, at Canamina, on the eastern slope of the Andes, having crossed the second range from Eucalyptus over the magnificent Guggenheim auto road to Pongo, and thence by a four-days' mule trail, via Quime and Cajuata, to this place, a large landed estate, which I shall briefly describe as a typical illustration of latent opportunities for American business enterprise, essential to the future control of the world's tropical raw materials.

The Canamina Estate is owned by the Syndicate Industrial of Bolivia, a banking connection, with headquarters at La Paz. The area owned is about 550,000 acres, more or less, of which, incredible



Photograph by I. F. Scheeler.

SCENE IN THE YUNGAS REGION, BOLIVIA.

as this may sound, only 370 acres are in cultivation. Nearly all of this is planted in sugar cane, used only for the manufacture of alcohol. A distillery is run in connection with the farm, producing about 1,600 cans of alcohol per annum. Under American management, pushed to the point of more efficient production and without taking up additional land, this amount could easily be increased to 5,000 cans.

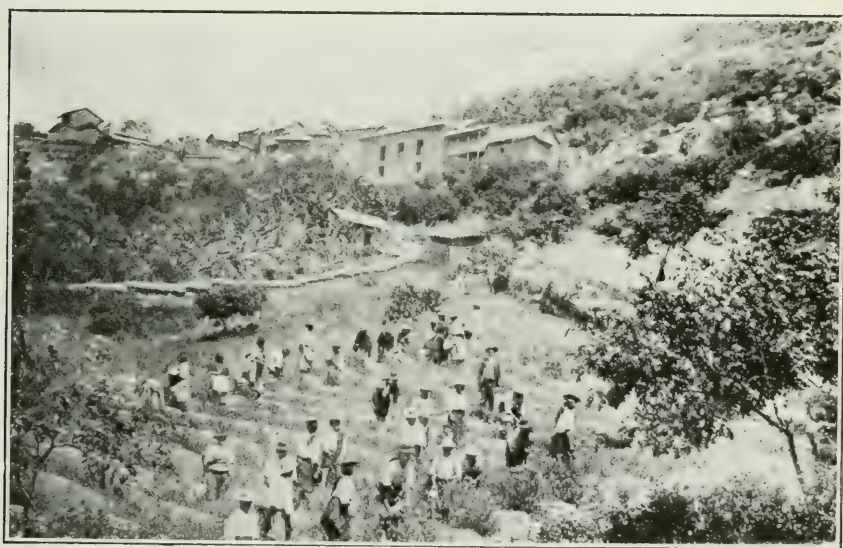
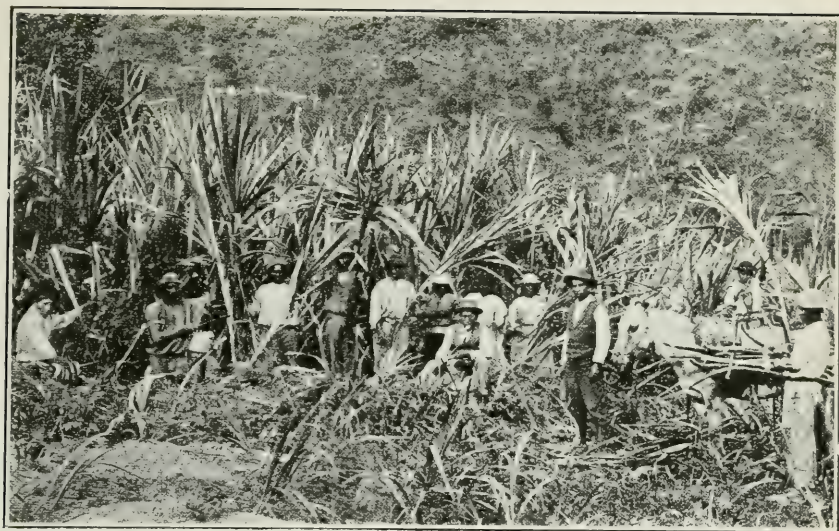
Why does such an opportunity go to waste? Primarily for the lack of capital, looked upon as a long-time but entirely safe investment. But equally important is the want of proper direction and experienced executive skill. What Americans have done in Hawaii, what they are doing through the United Fruit Co. in Central America and the West Indies, Americans could do in the Bolivian lowlands.

Canamina is located at an elevation of 1,390 meters (about 4,600 feet). It is situated at the head of a lovely valley, part of the famous Yungas region, which, practically to the very mountain tops, is cultivable or usable. The climate is semitropical, in the peculiar sense of the Andean highlands' warm days and cold nights. The rainfall is about 60 to 70 inches a year and the average temperature at noon is 87°. The latter records, however, are as yet of too short duration to be considered final. The soil is unusually fertile, producing all the tropical products of excellent quality, including sugar cane, coffee, cocoa, castor-oil beans, bananas, oranges, etc. Of particular economic importance is sisal, which grows wild at the rate of 100 plants to the acre. The quality of the local fiber is considered of superior value.

The area in large part is densely wooded. There are 13 species of laurel, many species of walnut, several kinds of colo wood (of great value on account of exceptional hardness), a large variety of soft woods, while the calisaya, or chinchona-bark, tree, grows wild and in abundance. There are some readily accessible areas for grazing purposes and countless indications of minerals. None of these resources are being worked at the present time, although the home market alone would absorb many times the local production, even if very materially increased.

It is difficult to understand why such an opportunity should practically go to waste. The farm has an excellent manager who naturally deplors the backward condition. He is an engineer of more than average ability, particularly interested in the better development of the water power furnished by a never-failing stream. The potential horsepower of the area may be placed at 40,000, of which only 110 horsepower is being developed! The plant at present furnishes power for the distillery and for electric lighting.

The hacienda consists mostly of old buildings, in a poor state of repair. The laborers' quarters consist of a village of 44 houses, with 127 inhabitants. There is an abundance of Indian and Cholo mixed-blood labor available and well adapted to local needs. Wages



AGRICULTURAL PURSUITS IN BOLIVIA.

Upper: A sugar cane plantation. Of the vast acreage owned by the Syndicate Industrial of Bolivia, approximately only 370 acres are under cultivation—practically all of which is planted in sugar cane.
 Lower: Harvesting coca in eastern Bolivia.

run from 2 to 3 bolivianos a day, or from about 50 to 75 cents. Salaried employees receive about 150 bolivianos¹ a month with board.

Such are the elementary economic facts of the situation. More difficult of precise statement are the financial aspects of the question presented. The original purchase price of the estate in 1916 was 625,000 bolivianos, to which has been added about 300,000 bolivianos since. The present annual expenditures are about 136,000 bolivianos, and during the first four years about 24,000 bolivianos has been lost.

It is estimated that the estate could be capitalized at 300,000 bolivianos, which should return a 10 per cent dividend. But to accomplish this, it would be necessary to install new machinery, enlarge the area of operation, and bring about a community of interest through cooperative agreement with three or four near-by or adjoining estates, having a total acreage of half a million acres. Recalling the admirable manner in which large plantation interests have been combined in developing Hawaii, now in danger because of an unwise homestead agitation, and the truly inspiring results of the United Fruit Co., it would seem that the so-called Yungas region of Bolivia should be made the subject of careful inquiry on the part of American financial interests, anxious to secure productive areas before they fall into the hands of foreign competitors.

The first step is for American financial institutions seeking foreign investments to make a thorough inquiry into the *facts* of Bolivian resources and possibilities. Much can be learned from the results of past explorations, much from the official information of local governments, the ministry of colonization and that of lands and public works. On the other hand, very little of practical value is to be derived from books about Bolivia, with at least one notable exception: "Bolivia," by Paul Walle, commissioned by the French Ministry of Commerce, which has been translated by Bernard Miall (London, 1914). Of great value, also, are the publications of the Pan American Union and of the United States Department of Foreign and Domestic Commerce. But the true facts of pressing importance as a basis of American investments in tropical regions can only be learned by patient, impartial, and qualified personal inquiry. There are Americans down here and foreigners with American experience (the manager of the Canamina plantation is a Frenchman who, during the war, served with distinction on the U. S. Shipping Board), who are enthusiastic as to the future of the country and who have faith in its people. The judgment of these men is of infinitely more importance than the half-baked opinions of sensation hunters who make capital out of exceptional instances to the injury of both Bolivia and the United States.

¹ The gold boliviano is worth 38.93 cents in United States currency, but the paper currency of Bolivia is now much depreciated.

Much is needed to place Bolivia on a strictly modern basis. Four fundamental economic principles must be clearly recognized and applied: (1) Adequate organization of finance, and executive or directive business capacity; (2) higher standards of agriculture and business methods generally; (3) improved methods of industrial operation, better technical skill and strictly modern appliances; (4) proper methods of accounting.

Much remains to be done to put Bolivia on a footing with modern nations in matters essential to the social and economic well-being of the people. Among the more important pressing needs are the following:

(1) An improved system of public finance on the principles of budgetary legislation. (2) Modern labor laws, including "safety first" and the protection of women and children. (3) Imperatively needed is a thoroughly modern public health administration, including higher standards of medical practice. (4) Bolivia needs an up-to-date geological survey concerned with the systematic mapping of the country and a study of its mineral and water resources. (5) Bolivia needs a better postal service and a further extension of the wireless to regions difficult of access.

All of these matters bear directly upon the economic needs of the country. I had a conversation to-day with Señor Gonzales, the owner of the Hacienda El Naranjal in the Inquisivi section of the Department of La Paz, not so very far from Canamina. He complained bitterly of the want of labor, saying: "Men will not come to my section because of the fear of malaria, and I don't blame them. But what can be done about it without an active health administration on the part of the Government?" Precisely. The control and possible prevention of malaria on a large scale is a Government measure of the first necessity. Here is an estate valued at 80,000 bolivianos which 25 years ago was bought for 15,000 bolivianos, earning but a fraction of the enormous possible gains in proportion to the financial interest involved. This estate, about 6 miles in length and 3 miles wide, is cultivated only to the amount of 100 acres.

The principal product is coffee. Twenty years ago coffee sold at 15 bolivianos per 100 pounds, while to-day the price is 50 bolivianos. Only 14 laborers are employed at wages of 1.50 bolivianos a day. This labor is inefficient, largely because it is undermined by disease, by malaria, by coca, by alcoholism and, last but not least, by malnutrition. American labor camps typical of what has been done in Hawaii, American labor standards, and American corporate medical care typical of the United Fruit Co. would in 10 years revolutionize Bolivian industry and agriculture.

On this plantation, as all through the Yungas-Inquisivi region, practically everything is grown or can be grown that the worker

is in need of. I may mention oranges, lemons, bananas, tobacco, sugar cane, Indian corn, yucca (manioc), coffee (of excellent quality), cabbages, cauliflower, onions, pumpkins, etc. The annual income (gross) is about 12,000 bolivianos at the present time. Under American direction, aided by labor-saving devices and the application of modern principles of agriculture, crop rotation, soil conservation, etc., this area could easily be made a very material and permanent source of revenue.



A SMALL CLEARING IN THE DENSE FOREST OF EASTERN BOLIVIA.

Much is made of available transportation facilities. The Guggenheims have shown how the problem can be solved, and at the same time they have shown their faith in the future of Bolivia. Mountain trails are surprisingly good, considering the often very serious topographical problems to be met. Still more is made by unfriendly critics of the unsettled state of the Government. Revolutions here represent a totally different phase of political life than with us. The history of France was, within 30 years, one of frequent and violent political changes. In proportion as industry, agriculture, and commerce develop, these upheavals will pass away. They have no bearing upon the security of private or corporate foreign investments. They have not hindered a considerable railroad development by foreign capital in this country. They have not been a bar to the

magnificent business enterprise of Grace & Co. They have not affected the growth of the very useful American Institute in La Paz. They have left wholly unaffected the expansion of the Guggenheim and other foreign mining interests in a variety of directions. They are, in brief, a matter of private or local and not of foreign concern. *Bolivia is the land of tomorrow.* Nothing can hinder her ultimate growth in wealth and power. Will Americans seize the opportunity, hold out a helping hand *now* while the aid of capital and directive energy are most urgently needed, or will they look idly on while other nations secure a position of priority, to the ultimate and permanent disadvantage of both Bolivia and the United States?



YUNGAS STATION, BOLIVIA.

The eastern destination of the railroad which will connect, when completed, the city of La Paz with the Yungas region.

EXTINCTION OF THE CATTLE TICK IN URUGUAY

ADDITIONAL MEASURES PROPOSED BY A SPECIAL COMMISSION NAMED
BY THE GOVERNMENT OF URUGUAY.¹

THE commission believes it advisable to take the following measures as soon as practicable:

1. Argentina, Brazil, Paraguay, and Uruguay to hold an international conference on the extermination of the cattle tick to consider a plan of concerted action against the pest.

2. To entrust to the boundary commission the formulation and execution, if possible, of plans to enclose with wire fencing the Uruguay-Brazil frontier at the cost of the State, the care and maintenance of the fencing to be under the frontier land owners. This closing of the frontier would greatly contribute to the elimination of three dangers: rinderpest (cattle plague), the cattle tick, and smuggling.

In the attempt to guard the frontier against the rinderpest (cattle plague) the State expended approximately 100,000 pesos in the maintenance of troops in the border region. Would it not be advisable to expend this amount once for all on a permanent means of maintaining this important restriction against crossing the frontier?

3. To appropriate funds for the further serious study of the biology of the tick, and the effectiveness of cattle dips, with special attention to the following points:

(a) Minimum effective immersion time limit of tick-destroying cattle dip solutions. This knowledge would determine the length of the dip vats, and save expense in construction and the quantity of chemicals to be used in the solutions.

(b) Causes of deterioration in dip solution, period of effectiveness, and means of maintaining solution effective.

(c) Effect of cattle-tick dip solutions on equine and ovine species.

(d) Danger of the tick found in hides.

4. To demand that every proprietor of over 1,000 hectares of land construct a dip tank for large species of live stock and one for sheep, or a type suitable for both.

5. To found immunization stations against Texas fever with special regulations, working with cooperative societies in Brazil, for the production of sires to be offered in the Brazilian market.

6. To urge veterinarians graduating from the Veterinary School to begin their careers as Government mange and tick inspectors, thus

¹Revista del Ministerio de Industrias del Uruguay, October-November, 1921.



Courtesy of Bureau of Animal Industry, U. S. Department of Agriculture

A BADLY TICK-INFESTED HERD.

The poor condition of the cattle is due entirely to ticks, as the pasture is good.



Courtesy of Bureau of Animal Industry, U. S. Department of Agriculture.

APPEARANCE OF TICKS ON AN INFESTED ANIMAL.

to familiarize themselves with the country and the cattle raisers, and to fit themselves for other posts.

7. To establish special courses in the Veterinary School for veterinarians who wish to become sanitary officers. Such courses should give special attention to the subjects of parasitic and microbic diseases prevalent in the country, artificial immunization against Texas fever, the composition and use of specifics, mange cures, serums, vaccines, etc., and milk and meat inspection.

8. To furnish incentive to the officers engaged in the fight against the tick and mange, by increases of salary or by annual bonuses, suggested by the Central Commission for the Extinction of the Tick.



Courtesy of Bureau of Animal Industry, U. S. Department of Agriculture.

DIPPING CATTLE TO ERADICATE TICKS.

The fight against the tick is worth while. The commission bases its belief not on optimistic and unfounded suppositions, but upon the conclusive results sent to us from other countries. For instance, the fight against the tick in the United States has been most successful, as proved by the following paragraphs of a report published by the Department of Agriculture of that country. The report says:

The tick infected area in July, 1906, the date on which the tick destruction regulations went into effect, comprised 728,565 square miles. By the end of November, 1920, the tick had been eradicated from 70 per cent of the aforesaid area, and from this the quarantine was lifted, leaving 218,474 square miles still under the regulations. In 1920 alone it was possible to raise the quarantine on and declare tick-free an area of 32,171 square miles.

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

PURCHASE OF LOCOMOTIVES.—The Government has placed an order with the Baldwin Locomotive Works for 25 locomotives for the Patagonian Railways, to be shipped within 40 days, says the Review of the River Plate of May 19, 1922. Payment is to be made by notes for three years delivered against evidence of purchase of Argentine wool; interest, 7 per cent. Bids for 50 locomotives were submitted early this year by 15 firms of various nationalities. Although a German company presented the lowest bid, it is said that it could not undertake to make delivery within the time specified. Other Baldwin locomotives purchased by the Argentine Government have produced very satisfactory results in trials and are expected to reduce the running time between Tucumán and Salta three hours.

RAILROADS.—A special train running from Constitución station to Bahía Blanca opened the Stroeder-Patagones branch of the Southern Railroad on April 19. The Catamarca-Tucumán line is employing 500 laborers, and it is hoped to have trains running by August or September.

MARKET FOR ARGENTINE PORK.—The Argentine Legation in London has forwarded important information regarding British recognition of the department of agriculture inspection certificates on pork, hams, and bacon. The department of agriculture is asked to label or stamp each box or package in addition to giving a general certificate for the whole shipment. This regulation by the British Public Health Service tends to facilitate the sale of Argentine pork to England.

FRUIT TO ENGLAND.—In March a shipment of Argentine grapes and plums was sold in Covent Garden Market, London. The Argentine Legation in London advises that London should prove a good market for all kinds of Argentine fruit, due to the reversal of the seasons in the two hemispheres.

BRAZILIAN CENTENARY EXPOSITION.—The Argentine Building in the exposition grounds at Rio de Janeiro is approaching completion. The first of the three floors will contain exhibits of Argentine raw

materials in five groups, transportation and public works, educational and political economy exhibits, and the special exhibition of the city of Buenos Aires. The second floor will be devoted to land, colonization and emigration, Government promotion of industrial or natural development, the industrial exhibits, and a large moving-picture hall where illustrated lectures will be given. The basement will contain an assortment of fresh and preserved fruits, animal foods, cheese, prepared milk, and other Argentine food products.

TRANSANDINE RAILROADS.—See page 189.

BOLIVIA.

OIL PROSPECTS.—A commission of engineers, sent by a company holding petroleum concessions, is now studying the oil fields near Buenavista and another such commission has arrived at the town of Charagua on its way to the Cordillera regions, where there are large concessions. Equipment and machinery are coming into the country by way of Beni and Yacuiba.

WOOL AND HIDE EXPORT TAX.—See page 186.

BRAZIL.

COTTON EXPERIMENT STATIONS.—Cotton experiment stations of the States of Maranhao, Piauhy, Rio Grande do Norte, and Pernambuco during 1921 produced 43,159 pounds of cotton seed, a quantity sufficient for planting 3,224 acres. The official Cotton Service has also purchased and distributed about 100,000 pounds of seed and has disinfected with its equipment 224,000 pounds for planters. The establishment of an experiment station in the State of Bahia has been recommended, and a subsidy for the maintenance of a cotton service in the State of Sergipe during 1922 has been authorized. (Consul General Alphonse Gaulin, Rio de Janeiro.) (*United States Commerce Reports*.)

FREE MARKETS IN RIO DE JANEIRO.—The successful operation of the free markets of Rio de Janeiro has continued without interruption. Sales have increased enormously since their inauguration on April 17, 1921, with the result that they are now recognized as an important development in the economic life of the Brazilian capital.

Figures recently published by the food superintendent of the Brazilian Agricultural Department show that between the dates of April 17 and December 31, 1921, food products and merchandise, including wearing apparel of all kinds, amounting to more than 10,000,000 milreis, were sold at the 594 free markets held during that period. (On April 1, 1922, the milreis was quoted at \$0.135 United States currency.) There are about 25 places scattered throughout the most

thickly populated and accessible districts of the city, where these free markets take place, and while ordinarily not more than two free markets will be held in one place during the same week, invariably several are in progress in different districts of the city continuously. . . .

The operation of these free markets has given part-time employment to more than 3,000 persons. . . . It is also interesting to note that in spite of the enormous sales at these free markets there was no noticeable falling off in the sales of the regular stores. This would tend to indicate that much more food was being consumed in the city. . . . (*United States Commerce Reports*.)

LOWER RATES ON THE LLOYD BRASILEIRO LINE.—The Lloyd Brasileiro has further reduced its rates for passengers between New York and Rio de Janeiro. The fare is \$160 one way and \$300 for the round trip. Excursion rates to the exposition will be \$500, including the round steamer trip and 25 days' stay at one of the hotels of Rio de Janeiro. These trips will begin the first week in August. Prior to this reduction the prices of passage between New York and Rio de Janeiro were \$220 one way and \$396 for the round trip by any of the company's steamers.

THE ROYAL MAIL STEAM PACKET CO.—Authorization has been granted the Royal Mail Steam Packet Co., with headquarters in London, to operate in the Republic.

AMERICAN INDUSTRIAL EXHIBITION BUILDING.—As the building erected by the United States for the centenary exposition in September will house only Government exhibits, a building for other exhibitors is being erected by private enterprise. In connection with the motor and good roads show, it is expected that there will be large exhibits of automobiles, motor cycles, and accessories, as well as road-making machinery. Motor boats, machinery, engines, and motors of all kinds and many other United States products will be shown.

CHILE.

PROGRESS IN IMPORTANT ELECTRIFICATION PROJECT. —On April 12 took place the laying of the cornerstone of the Quilicura substation which, with the four others at Pingue, Llay-Llay, San Pedro, and Vina del Mar, will supply the power for the electrification of the railroad between Santiago and Valparaiso being carried out by the Westinghouse Electric Co. This stretch of 190 kilometers is the first standard-gauge railroad in South America to be electrified, and constitutes a work of the highest importance. Details were given in the January and March, 1922, issues of the BULLETIN.

AGRICULTURAL EXPORTS.—The exports of the chief agricultural products in 1919, 1920, and 1921 were as follows (amounts are given in metric quintals—1 metric quintal equals 220.46 pounds):

Products.	1919	1920	1921
Carob beans.....	56,318	30,650	61,213
Oats.....	26,589	27,837	264,306
Chilled beef.....	116,217	162,215	197,274
Barley.....	354,985	307,706	465,687
Malted barley.....	74,037	99,623	239,246
Hides.....	89,762	32,566	11,723
Black beans.....	183,163	104,354	145,803
Garbanzos.....	23,754	7,655	16,604
Wool.....	124,740	130,238	113,980
Lentils.....	54,053	38,468	69,625
Wheat.....	382,154	229,769	415,446
Wheat flour.....	227,817	102,024	103,828
Clover.....	18,667		

EXPOSITION AND ACTIVITIES.—SOCIETY FOR THE PROMOTION OF MANUFACTURING.—Under the patronage of the Sociedad de Fomento Fabril an exposition of national industries and products will be opened in Santiago September 16, and will remain open at least two months. Foreign firms are invited to show machines, apparatus, instruments, and tools for agriculture, mining, and manufacturing, which will not, however, be considered for prizes. Exhibitors may sell their exhibits and replace them by others.

Among the interesting items in the 1921 report of this progressive society is an account of the night schools maintained by the society in different industrial cities of the Republic. These number 14, and include 9 for various branches of drawing, 3 for mechanics and machines, 1 for electrical work and motors, and 1 for elements of construction and building inspection. In Santiago, Valparaiso, and Valdivia there are also preparatory courses in mathematics.

The industrial library of the society contains technical books, magazines, catalogues, and other publications which have been found to be of great service.

The society is cooperating with the labor bureau to introduce further provisions for safety and health in factories, having especial regard to the prevention of accidents and occupational and infectious diseases.

NEW RAILROAD.—Work was begun in May on the new railroad being built by the Lebu Coal Co. from Lebu to Los Sauces. This will, it is said, make available valuable deposits of coal which could not hitherto be economically exploited.

NITRATE PRICES.—The nitrate prices fixed in May by the Association of Nitrate Producers are as follows per metric quintal of 220.46

pounds: July 1-15, 18s. 6d.; July 16-31, 18s. 9d.; August 1-15, 19s.; August 16-31, 19s. 3d.; September 1-15, 19s. 6d.; September 16-30, 19s. 9d.; October 1-15, 20s.; October 16-31, 20s. 2d.; November 1-15, 20s. 4d.; November 16-30, 20s. 6d.; December 1, 1922-April 30, 1923, 20s. 8d.; May, 19s. 9d.; June, 18s. 6d.

Hereafter prices will always be quoted per metric quintal, instead of as heretofore per Spanish quintal of 101.43 pounds.

TRANSANDINE RAILROADS.—See page 189.

EXPORT AND IMPORT TAX.—See page 187.

COLOMBIA.

SERICULTURE.—A group of French capitalists interested in silk raising has sent an expert commission to study the possibility of establishing sericulture on a commercial scale in Colombia, and the Minister of Agriculture and Commerce is endeavoring in every possible way to promote what it is hoped will be an industry of future importance. The President has offered a prize of 1,000 pesos for the best paper on the cultivation of the mulberry tree and the silk worm.

PETROLEUM INSPECTORS.—Resident petroleum inspectors are hereafter to be appointed by the Ministry of Public Works whenever the visiting inspector reports that a well has begun to yield. Their duties will include analysis of the products to determine in what class they belong, examination of the company's books to see that the tax is properly paid, and general safeguarding of the Government's interests.

PACKING HOUSE AT COVEÑAS.—The construction of this large packing house, mentioned in the August, 1921, number of the BULLETIN, is well advanced. The sum of 2,400,000 posos has already been spent on the buildings, the wharf, which is over 200 feet long, the water supply, railroad, and other necessities. It is expected that the plant, which has a capacity of 500 head a day, will begin to operate within 15 months. In the meantime the company, which has its own herds, is exporting cattle to Mexico and importing pure-bred stock.

RAILROAD.—The Northeast Railroad Syndicate has borrowed from the Sociedad de Estudios Belga-Colombiana the sum of £1,500,000 in money and 80,000,000 francs in rolling stock and construction material in order to advance the railroad from Bogotá via Usaquén, Puente del Común, Chocontá, and Tunja to a point near Soatá, a total distance of approximately 400 kilometers.

COSTA RICA.

CATTLE TO MEXICO.—In April several stock raisers of San José shipped the first 1,000 head of Costa Rican cattle from Limón to Vera Cruz, Mexico. In May a second shipment of 900 young bulls was sent to Tampico. Mexico's cattle herds have been greatly reduced, raising the price of meat far above the normal rate.

GUANACASTE OIL EXPLORATION.—A company is drilling in the oil-shale region of the Province of Guanacaste (Nicoya). One of the concessionaries is German, as is the engineer in charge of the work.

FOREIGN TRADE, 1921.—Exports from Costa Rica during 1921 amounted to \$11,886,953.02 and imports to \$9,180,098. (*President's message, May 1, 1922.*)

CUBA.

IMPROVEMENTS IN ZAZA DEL MEDIO.—In April local telephone service was opened in Zaza del Medio, a town of about 2,200 inhabitants in the central part of the Republic, engaged chiefly in the raising of tobacco. Its annual crop amounts to about \$3,500,000 a year. The town is paving its streets, laying sidewalks, and carrying out other public improvements.

NATIONAL SUGAR CONGRESS.—The organization committee of the National Sugar Congress met in the National Agronomic School at Quinta de las Molinas to formulate the program for the next congress.

DOMINICAN REPUBLIC.

DUARTE HIGHWAY AND OTHER ROADS.—Amid great rejoicing, the Duarte Highway, named in honor of the founder of the Republic, was opened to traffic on May 8 of this year. It is 292 kilometers long and attains its maximum altitude, 276 meters, at La Cumbre, on the boundary line between the Provinces of Santo Domingo and La Vega. It was here that the inaugural exercises took place, the union of the northern and the southern parts of the country being symbolized in the speeches and handclasp of the governors of the two Provinces. General Ramón Cáceres, President of the Republic from 1914 to 1916, advanced the idea for such a highway, and construction was begun to some extent nine years ago. The Director General of Public Works will push the work to completion, replacing all temporary bridges with permanent structures.

Roads from Macorís and Cotuy to join the Duarte Highway are being constructed as rapidly as possible. The former will be 30 kilometers long.

SUGAR CENTRAL.—The Quisqueya Central at Macorís ground 1,500 to 1,800 tons of cane a day during this year's harvest, completing the grinding in 76 days. Eighty thousand sacks of 320 pounds each were obtained.

ECUADOR.

CHILEAN EXHIBITION.—The commissioner of the Chilean Government had many fine exhibits of live stock and agricultural and industrial products of his country on view during the Centenary of the Battle of Pichincha. These exhibits were sent by Chilean merchants who are anxious to increase trade between Ecuador and Chile.

GALAPAGOS COLONIZATION.—Chaves or Santa Cruz Island (Indefatigable) of the Galapagos group is to be colonized and developed by an Ecuadorean company, which has secured a contract to furnish 120 colonists, of whom three-fourths are to be Ecuadoreans. Each colonist is to have one lot of 50 hectares, title of possession to be given after five years cultivation. The industries to be developed are chiefly coffee and fruit raising, timber cutting, turtle fishing, and sulphur and salt mining.

TEXTILE FACTORY AND POWER PLANT.—By January 1, 1923, the Sociedad de Crédito Internacional expects to have in operation a factory for fine textiles and printed goods located in Alfaro, a suburb of Quito, and run by an electric plant which will also provide light and power to the public. The operatives of the factory will have all the latest benefits of factory organization, such as life and accident insurance, profit sharing, and a technical school.

This new industry is expected to promote the cultivation of cotton on a large scale and will furnish employment to about 1,200 operatives. As cotton goods are now imported in large quantities, there is an ample field for domestic products which can compete with foreign manufactures.

PETROLEUM TAX REGULATION.—See page 188.

HAITI.

NATIONAL AGRICULTURAL EXPOSITION.—More than 7,000 persons visited the exposition held May 7 and 8 at the school of agriculture situated at Thor. The minister of agriculture, the president of the committee, and the director of the school made speeches urging the development of agriculture.

METRIC SYSTEM.—See page 188.

HONDURAS.

ICE PLANT.—A new ice and refrigerating plant has begun operation on La Granja plantation near Tegucigalpa, and sells at a reasonable price ice manufactured from filtered water.

BANANAS TO EUROPE.—In April the steamer *Manzanillo* of the United Fruit Co. sailed from the port of Tela with a cargo of 60,000 bunches of bananas for Liverpool, England. This was the second steamer to carry fruit to Europe.

BLOODED SIRES.—An important stock-raising company has recently bought 60 blooded bulls in the United States for the improvement of local breeds of cattle.

MEXICO.

OIL.—A well producing 250,000 barrels of oil daily has been opened to a depth of 2,132 feet in the Chapote Núñez zone. The agent of

the Huasteca Co., to which the concession belongs, said that this was the second largest producing oil well in the world.

During May 18,598,000 barrels of petroleum were exported to the United States, or 500,000 barrels less than in April.

METALS.—According to official statistics recently completed, during the last 12 years Mexico has produced 2,194,264,886 gold pesos' worth of the following minerals: Antimony, tungsten, tin, arsenic, manganese, molybdenum, vanadium, graphite, coal, iron ingots, steel ingots, the largest amount of any one mineral being 837,533,035 kilos of lead. From 1910 to 1921 over 21,000,000 kilos of silver were produced, representing practically 1,000,000 gold pesos. Gold produced during the same period amounted to 281,000 kilos, approximating a value of 375,000,000 pesos.

TEXTILES.—According to figures furnished by the Department of Hacienda in 1921, of the 133 cotton textile factories in the whole country 120 were in operation. They used 35,924,235 kilos of cotton, producing 11,922,159 pieces of woven or printed cloth and 4,461,459 kilos of yarn. These fabrics totaled sales to the amount of 93,341,986 pesos and furnished employment to 38,277 operatives.

The factories are classified as follows: Weaving and spinning, 100; spinning, weaving, and printing, 9; printing, 3; weaving, 3; spinning, 14; hat shops, 4; making a total of 133, 13 being closed. The year's consumption of cotton was: Central factories, 23,942,450 kilos; Gulf factories, 8,879,193; northern factories, 2,715,525; and Pacific factories, 3,387,067; making a total of 35,924,235 kilos.

The spinning and weaving factories used 12,945 spindles, 2,031 old-style looms, and 26,378 modern looms. The printing factories used 5 old printing machines and 37 modern ones.

INSURANCE.—In 1920 the fire insurance companies in Mexico transacted a total business of 677,567,386.69 pesos, which in 1921 increased by 136,670,820.76 pesos to 814,238,207.45 pesos. Risks on personal and real property which in 1920 were 3,262,080.64 pesos, increased 2,373,071.18 pesos in 1921 to 5,635,151.82 pesos, and maritime insurance from 367,087,720.32 pesos in 1920 decreased 80,740,068.02 pesos to 286,347,652.30 pesos. There are now nearly 70 insurance companies in the Republic.

NEW NEWSPAPER BUILDING.—The important Mexican daily "El Universal" is to be located in a fine new six-story reinforced concrete building at No. 12 Avenida Bucareli, Mexico City, near the Departments of Foreign Relations and Government, the police, health, and other bureaus. The structural steel will be the product of the Compañía Fundidora de Fierro y Acero, of Monterey, the elevator one of German make, and the public clock, a chiming timepiece purchased from a clock maker of the capital city, which will play the national anthem at noon each day.

PETROLEUM EXPORT TAXES.—See page 188.

OBLIGATORY CORN CULTURE CLASSES.—See page 193.

CEREAL IMPORT TAX.—See page 184.

OYSTER BEDS.—The Department of Agriculture and Promotion is to regulate the gathering of oysters. Commissioners are going to Corpus Christi, Tex., to study the oyster-bed regulations in force there. Irregular and unlimited gathering of oysters in Mexican beds has resulted in the depletion of the beds and the sale of contaminated oysters.

NICARAGUA.

ICE PLANT.—The city of León has a new ice plant located near the railroad station.

EXPORTS.—Maize, beans, and lard are being exported to a considerable extent. The maize crop around Managua is especially bountiful.

HYDROPLANE SERVICE.—A contract for a freight and passenger hydroplane service on Lake Managua and the San Juan River has been approved by the President and will be effective for 15 years. The company promises to carry Government troops, war material, and mails free of charge.

STOCK RAISERS' COMPANY.—A stock raisers' company has been formed in Managua for the exportation of cattle to Cuba, Porto Rico, the Dominican Republic, and the Lesser Antilles.

PANAMA.

ROADS.—The contract has been let for the reconstruction of First Avenue in the exposition grounds, Panama, which will complete the link between Central Avenue and the Sabanas highway.

The Roads Committee of Panama has received word that the road to Chorrera is now in good condition and that the Aguadulce-Penomomé road is progressing.

PARAGUAY.

PRODUCTS EXPOSITION.—The Paraguayan railroads are giving an exhibition of Paraguayan products in Buenos Aires. The exhibits include samples of the various grades of tobacco, cotton, and woods. Among the latter are various varieties useful for dyeing and tanning.

CONSUMERS' COOPERATIVE SOCIETY.—In order to avoid the high price and poor quality of food, a group of Asunción citizens is forming a cooperative consumers' society which will bring products directly from factory or farm and do away with the middleman.

AUTOBUS SERVICE.—Passengers and freight now travel by autobus from Belvedere, Asunción, to the Botanical Gardens. Train service was inadequate and the journey by automobile expensive, while the new busses furnish cheap and commodious transportation.

PERU.

SECTION OF RAILWAY OPENED.—The first 51 kilometers of the railroad under construction from Huancayo to Ayacucho have been opened to provisional freight and passenger service. Chamana is the present terminus.

ROADS.—There is much activity in road building throughout the Republic. Among the highways under construction are those from Lircay to Ayacucho; from Huabal to Huayday, the former being on the road from Trujillo to Quiruvilea, 40 kilometers from Huayday; and from Mayucallán, on the Chimbote-Recuay railroad, to Puerto Pizana, on the Huallaga River, via Mirazanta, Tarica, Choquebamba, Sihuas, and Tallabambai. The sections from Mayucallán to Mirasanta and from Choquebamba to Sihuas are those at present receiving attention; on the latter 150 men are working under the road conscription law.

URUGUAY.

MODEL FARM.—Under the supervision of an agricultural expert the National Stock Raising Agricultural Bureau has begun cultivation of a model farm at Estación Cazot, to serve as a practical example to the farmers of the extensive agricultural zone of the Department of Canelones. The farm will be stocked with fine dairy cattle and pigs.

FORAGE.—The bureau mentioned in the preceding item has obtained from Argentina, Brazil, and the United States seeds of the following forage plants, which it is distributing to Government bureaus and to agriculturists for experiment: Elephant grass, Rhodes grass, *yaraquá*, and red, crimson, and Mexican clover.

VENEZUELA.

Postal statistics for 1921.

MAIL RECEIVED.

Offices.	Letters.	Postals.	Printed matter.	Samples.
Caracas.....	436, 975	20, 917	531, 014	13, 675
La Guaira.....	436, 978	13, 335	416, 212	6, 590
Puerto Cabello.....	96, 971	18, 878	118, 680	16, 326
Ciudad Bolívar.....	192, 742	1, 565	264, 473	2, 759
Maracaibo.....	709, 228	24, 557	415, 080	5, 427
Carúpano.....	62, 410	1, 398	46, 455	756
La Vela.....	13, 690	357	8, 088	106
Total.....	1, 948, 994	81, 007	1, 800, 002	45, 639

Postal statistics for 1921—Continued.

MAIL DISPATCHED.

Offices.	Letters.	Postals.	Printed matter.	Samples.
Caracas.....	296, 246	22, 913	111, 313	6, 532
La Guaira.....	148, 590	6, 727	31, 891	3, 238
Puerto Cabello.....	104, 365	12, 677	152, 490	1, 491
Ciudad Bolívar.....	77, 951	1, 065	4, 805	125
Maracaibo.....	214, 518	13, 662	107, 058	6, 988
Carúpano.....	12, 475	527	1, 723	384
La Vela.....	7, 950	351	718	84
Total.....	862, 095	57, 922	409, 998	18, 842

RAILROADS.—During 1921 the railroads of Venezuela sold 1,924,304 tickets, carried 332,292,218 kilos of freight, collected 16,710,309.30 bolívares gross receipts, and expended 11,613,470 bolívares.

HORN LINE STEAMERS.—This steamship line is to run a steamer service from Hamburg via Belgium to the Dominican Republic, Haiti, Curaçao, and Colombian and Venezuelan ports. If freight cargoes warrant it, steamers will also go to South America via England and France. Nine new vessels, from 2,200 to 4,200 tons, have been built for this line since the war, making in all a fleet of 25 vessels, with two shipyards. The company has contracted for large warehouses in Curaçao for freight storage, and it will transfer freight from vessels of large draft to those of lesser draft capable of passing the bar at Puerto Cabello.

ECONOMIC AND FINANCIAL AFFAIRS

BRAZIL.

SANTA CATHARINA BONDS.—Halsey, Stuart & Co. (Inc.), Cassatt & Co., of Philadelphia, and the Second Ward Securities Co., of Milwaukee, are offering \$5,000,000 State of Santa Catharina 25-year 8 per cent external sinking fund gold bonds at 101. The bonds are dated February 1, 1922, are due February 1, 1947, and are non-callable for 10 years. The proceeds from the loan will be applied to the retirement of \$5,000,000 6 per cent secured external gold bonds sold in the United States in 1919, and also to the purchase in the United States of materials necessary for the construction of various Santa Catharina State improvements.

COSTA RICA.

REVENUE OF 1921.—From the President's message read before Congress on May 1, 1922, the following figures are taken: Total reve-

nues, 1921, 17,880,471 colones, of which the customs duties represented 7,130,289 colones. The expenditures for the same year were 18,537,586 colones, of which 4,489,162 colones were paid on the interest and incidentals of the debt, 365,000 francs toward the amortization of the French loan, and 36,000 pounds sterling on the amortization of the English debt.

ECUADOR.

MONOPOLIES.—A 6-year contract for the monopolies of alcohol, distilled liquors, rums, the refining and distillation of alcohol in the Provinces of Esmeraldas, Manáí, Guayas, Los Ríos, and El Oro; and for tobacco in hands, cut or manufactured, and cigarette paper has been granted by the President to the *Compañía Ecuatoriana de Estancos* (Ecuadorean Monopolies Co.). The company will pay 2,200,000 sucres to the Government annually from July 1, 1922, to June 30, 1928, or a total of 13,200,000 sucres for the term of the contract. Of this sum 1,100,000 sucres is for the liquor concession in the five Provinces and 1,100,000 sucres for the tobacco and cigarette paper concession. Each year the surplus profit over the sums mentioned will be divided equally between the State and the monopolies company. If the monopolies company suffers a loss in any year, this loss will be subtracted from the next year's excess profits before the division thereof with the State. The monopolies company is to make a loan to the Government of 500,000 sucres for administrative expenses in accordance with the budget (art. 9), at 9 per cent annual interest, to be amortized in equal payments from the Government revenue from the monopolies during the last two years of the contract, the interest being deducted monthly from the sum due from the company.

HONDURAS.

CITY CREDIT.—Tegucigalpa has secured a credit of 50,000 pesos in a current account with the Bank of Honduras, to be amortized by the import duties on foreign merchandise and market license taxes. The money is to be used for building a public market.

MEXICO.

CEREAL IMPORT TAX.—On June 1 a tax of 2 centavos per kilo was imposed on imported corn and 4 centavos on imported wheat. Last year Mexico bought from the United States 11,871,546 bushels of corn for which it paid \$10,130,649. According to the Department of Agriculture, Mexico during the same year produced 803,628.33 kilos of corn which, due to poor freight arrangements, it was unable to distribute over the country. The present tax, it is hoped, will cause this difficulty to be surmounted.

TAX COLLECTIONS.—According to the reports of the Treasury Department, Mexico collected 351,436,820.24 pesos from the principal sources of taxation during 1921. The stamp tax for 1921 amounted to 145,687,841.91 pesos, of which 3,466,584.54 pesos were expended in the payment of officials and employees in the collection service. The special tax receipts for 1921 were 100,396,500.71 pesos, of which 309,136.50 pesos were paid for collection service. Duties collected amounted to 105,352,477.62 pesos, 6,277,379.50 pesos being spent for this service.

PERU.

RESERVE BANK.—In accordance with the law establishing the Reserve Bank of Peru, it has received from the Junta de Vigilancia the sum of Lp. 7,227,112.649. The amount of cheques circulares in present circulation, according to the liquidation of the Junta de Vigilancia, for which the reserve bank has been made responsible, is Lp. 7,221,976.4.00, and the total of gold certificates in present circulation is Lp. 77,176.7.20, or a total of Lp. 7,299,153.1.20. Therefore the reserve bank has received a guaranty of Lp. 5,136.2.49 in excess of the issue of cheques circulares and gold certificates.

The Junta de Vigilancia still has in its power new cheques circulares of different types and series to a value of Lp. 1,051,824.8.00, which are to be received by the Reserve Bank in lots permitting them to be destroyed upon receipt.

URUGUAY.

MONTEVIDEO LOAN.—The city of Montevideo has negotiated with Dillon, Read & Co., of New York, a loan of \$6,000,000, secured by 7 per cent sinking fund gold bonds, dated June 1, 1922, and due June 1, 1952. A sinking fund is provided to redeem the whole issue by maturity; payments are to be applied by Dillon, Read & Co. as sinking-fund agents during the first 15 years, during which the bonds are noncallable, to the purchase of bonds if obtainable at or below par, and thereafter to purchase or call by lot at par. The bonds were sold at 97 and interest, and are secured by receipts from the sanitation, lighting, and paving taxes, subject only to a prior charge in favor of the London loan, now about \$4,765,000 outstanding with a present annual service of about \$372,000.



LEGISLATION

ARGENTINA.

RENTALS REGULATION LAW.—On April 28 the Supreme Court of Justice rendered a majority decision declaring the constitutionality of the rentals regulation law passed last year, says the Review of the River Plate. Article I of this law (No. 11157) provided as follows:

For a period of two years from the promulgation of the present law no rental higher than that which was in force on January 1, 1920, shall be charged for houses, rooms, or flats utilized as dwellings, or for commercial or industrial purposes throughout the territory of the Republic.

BOLIVIA.

WOOL AND HIDE EXPORT TAX.—A decree of April 5 changes article 1, paragraph 1, of the law of February 7, 1920, to read as follows: Exported hides, whether manufactured, cured, raw, or salted . . . are subject to an export tax of 10 per cent ad valorem according to the New York quotations of Bolivian hides, or lacking those, of Argentine hides.

Article 2. Revenue from the customs duties collected on hides are to be distributed monthly as follows: 20 per cent to the National Treasury, and 80 per cent to the departmental treasuries, 10 per cent to each. Article 3. Wool: Llama wool and alpaca are subject to an export tax of 6 per cent ad valorem as quoted in London or New York on wools in the markets whence they were shipped. Article 4. According to article 7 of the law of February 7, 1920, exportation of chinchilla skins and vicuña hides and wool is prohibited; this prohibition is continued by the present law. . . .

SANITARY PLUMBING.—On April 8, 1922, the President issued a decree requiring that in cities supplied with sewer systems every house have sanitary plumbing installed by the expiration of a specified period, at the cost of the owner. All plans, material, contracts, and other matters connected with this work will be subject to Government approval and inspection. Insanitary arrangements will be suppressed, and a fine of 100 bolivianos imposed for continuance of the use of insanitary arrangements in houses. When property coming under this regulation is worth less than 5,000 bolivianos, and is the only real property belonging to the owner, the Government, upon request, will furnish the cost of the installation of sanitary plumbing

as a five-year loan at 10 per cent. For this purpose a bond issue of 500,000 bolivianos is to be made, guaranteed by the property to be improved in the first instance, and by the State in the second.

To cover the maintenance cost of the sewer inspection system a land tax of 1 per thousand is imposed on city property, payable once only, upon approval of the necessary plans. . . . All materials imported for these installations are to be passed through the customs free of duty.

FOREIGN RELATIONS ADVISORY COMMITTEE.—By decree of May 2 the President has constituted a Foreign Relations Advisory Committee. This committee is to be composed of 10 members, who are: The Minister of Foreign Relations, the Undersecretary of Foreign Relations, the president of the Foreign Affairs committee of the National Senate and the president of the Foreign Affairs Committee of the Chamber of Deputies ex-officio, and six members appointed by the President from ex-Ministers of Foreign Affairs, ex-diplomatic ministers, party leaders, and distinguished public men. Vacancies will be filled by presidential appointment.

BRAZIL.

PREVENTIVE MEASURES AGAINST EPIDEMICS.—President Epitacio Pessoa has issued a decree opening a special credit of 392,000 milreis for the purpose of instituting measures to prevent the introduction of epidemics into the Republic from other countries and to equip the National Department of Public Health with resources to control any diseases now existing or which may occur in the future.

CHILE.

EXPORT AND IMPORT TAX.—Law No. 3852 levies a tax of 10 centavos on each metric quintal (220.46 pounds) or fraction of goods, including parcel-post packages, imported into or exported from the Republic.

REDONDILLA SYSTEM.—A recent regulation of the minister of marine gives the procedure for the biyearly selection and assignment of laborers to the different branches of port work, after consultation between the port authorities, heads of shipping agencies, and representatives of the workmen.

REVISION OF IMPORTANT LAWS.—A Senate commission has been engaged in framing a revision of the civil code and the marriage and civil registry laws, in matters pertaining to the age of majority, legitimization of illegitimate children, property rights of married women women as guardians, and similar subjects. When the commission has completed its labors, it will recommend a program to the Senate.

ECUADOR.

PETROLEUM TAX REGULATION.—The President has issued a decree which, in accordance with the mineral law, fixes the Government quota for 1922, from oil wells under exploitation, at 6 per cent of the gross product.

Petroleum can not be exported unless accompanied by a receipt showing the Government quota has been paid.

Other articles concern the fixing of the price, the method of giving receipts, and similar details.

HAITI.

METRIC SYSTEM.—A presidential decree of May 9, 1922, made the use of the metric system of weights and measures obligatory in all operations after July 1, 1922. Merchants are required to have their weights approved.

MEXICO.

PETROLEUM EXPORT TAXES.—The following paragraph is quoted from the report of Chargé d'Affaires George T. Summerlin, Mexico City, May 19: "Pursuant to the agreement made between the representatives of the petroleum industry and the Minister of the Treasury de la Huerta, a decree signed by President Obregón on May 17 fixes a new basis and method of payment of the export taxes on petroleum and its derivatives, collected in Mexico (technically known as 'impuesto especial del timbre,' or special stamp tax. The decree is effective from May 1 and the schedules of actual taxes are hereafter to be fixed by the Department of Hacienda, monthly, within the first 10 days of the month in which the impost is to be paid, and based upon quotations in the New York market during the preceding month. The payments are, without exception, to be made in national gold money, and within the first 25 days of the month following that in which the tax was incurred. . . ." (For full text see United States Commerce Reports, June 26.)

PERU.

LABOR AND SOCIAL WELFARE COUNCIL.—On Labor Day, May 1, the following Government decree was issued establishing the Labor and Social Welfare Council:

Whereas the action of the public authorities in connection with labor and allied social problems should tend to establish and guarantee due equilibrium between the interests of capital and labor; and

Whereas for the attainment of these ends it is necessary to create a consulting body whose members, by their independence of the interests directly affected by the solution of the problem, will constitute an effective guaranty to those who discuss questions related to capital and labor:

The President of the Republic decrees that: There shall be created a consulting commission called the Upper Labor and Social Welfare Council, composed of the following: The Minister of Promotion, Dr. Alfredo Solís and Muro, Dr. Julio Ego Aguirre, Dr. Plácido Jiménez, Dr. José Matías Manzanilla, Sr. Gino Salocchi, Sr. Pedro D. Gallagher, Dr. Pedro Mimbela, Dr. Victor Gonzales Olacoea, and Sr. Manuel Masías, as voting members of the council, assisted by the chief of the Labor Bureau, who will act as secretary.

COMMISSION FOR CHILD WELFARE.—A recent Government decree has established a commission for child welfare which is intrusted with the duty of protecting childhood in every possible way. Half of the 10 per cent tax on amusement tickets is appropriated for the work of the commission, whose first meeting took place April 22. Dr. Pedro de Osma, whose patriotic interest in civic problems is well known, has been made head of the commission. The commission already has proposed converting the exposition park into playgrounds for children and holding a national child welfare congress.

REGULATIONS FOR RECEIPT OF MERCHANDISE.—A presidential decree of December 28, 1921, sets up the following regulations for safeguarding goods arriving at the port of Callao:

All merchandise received at the Callao customhouse shall be officially inventoried immediately upon its receipt, with the proper visé or visés. After inventory it may be put through the customs for deposit, withdrawal, or reembarkation. The inventory shall be made on special blanks and shall state in detail the condition in which each case arrives. If any case is found in poor condition, the agent of the steamship company shall be commissioned to trace the party responsible for the damage. The inventory sheets shall contain also all customs data and units to facilitate the rapid payment of duties. After their completion they shall pass immediately to the checking and invoicing office to be numbered and compared with the complete manifest presented by the consignees. The duties may then be paid in the accounting office in accordance with the inventory sheets.

Beginning May 1, 1922, consular invoices and documents shall be prepared exactly according to the forms sent to the consulates, and the customhouse will refuse those presented in any other form.

Other paragraphs of the decree concern the warehousing of goods.



INTERNATIONAL TREATIES

ARGENTINA-CHILE.

TRANSANDINE RAILROADS.—A convention signed at Santiago April 25, 1922, provides for transandine connections between Argentina and Chile, the line on the north linking Salta and Antofagasta, and that on the south Bahia Blanca and the South Chilean Railroad system, both to be completed within three years. The

convention also fixes as the basis for minimum tariff charges on merchandise and cattle the actual cost per net kilometric ton of freight.

General tariffs involve such increases over the minimum as are permissible in consideration of the combined interests of the railroads as profit-making carriers and of the industries shipping products, so as to foster both. Tariffs will be subject to modification to meet exceptional conditions. Special tariffs may also be instituted. Uniform rolling stock will be adopted for all connected sections of the lines and interchanged according to the central European system as formulated at Berne. Cash settlements are to be made on the basis of car-day and not of mileage. (*Times of Argentina, May 1; Mercurio de Santiago, April 26, 1922.*)

BRAZIL.

INTERNATIONAL SANITARY CONVENTION.—By decree No. 15443 of April 19, 1922, the Government has promulgated its adherence to the International Sanitary Convention signed in Paris, January 17, 1912. (*Diario Oficial, May 10, 1922.*)

TRADE IN ARMS CONVENTION.—By decree No. 15475 of May 10, 1922, President Epitacio Pessoa promulgated the convention regarding the commerce of arms and ammunitions, signed at Saint-Germain-en-Laye, September 10, 1919, together with the protocol annexed to the same. (*Diario Oficial, May 17, 1922.*)

COLOMBIA-URUGUAY.

ACADEMIC INTERCHANGE.—On April 29, 1922, the convention between Colombia and Uruguay regarding free interchange of professors and students and mutual recognition of academic degrees and certificates was signed in Montevideo by Dr. Juan Antonio Buero, Uruguayan minister of foreign affairs, and Dr. Manuel A. Carvajal, chargé d'affaires of Colombia. (*El Día, Montevideo, April 29, 1922.*)

CUBA.

INTERNATIONAL SANITARY CONFERENCE.—The President has issued a decree announcing Cuba's support of the International Sanitary Conference of Montevideo and of the International Sanitary Office. (*Discusión, Habana, June 10, 1922.*)

DOMINICAN REPUBLIC-SPAIN.

PARCEL POST.—The parcel-post convention between the Dominican Republic and Spain, signed November 17, 1921, by the Director General of Mails and Telegraphs of Spain and by the corresponding official of the Dominican Republic on April 17, 1922, was approved

and ratified by the Dominican Republic April 29, 1922. (*Gaceta Oficial*, May 6.)

PERU.

FRENCH CLAIMS.—In payment of the so-called guano claims, submitted to arbitration following an agreement signed between France and Peru February 2, 1914, in accordance with The Hague convention of October 18, 1907, the sum of 25,000,000 francs will be remitted by Peru in five annual payments to the Government of France, which in turn will distribute the money to the various claimants. The court of arbitration, composed of M. Louis Sarrut, president of the Court of Cassation of Paris, Sr. Federico Elguera, formerly in the Peruvian diplomatic service, and M. Frederic Ostertag, president of the Swiss Federal Court, handed down its decision on October 11, 1921. (*El Tiempo*, Lima, April 26, 1922.)

POSTAL CONVENTIONS.—Under date of November 15, 1921, the Government approved the following postal conventions signed in Madrid November 15, 1921: Exchange of parcel post, the universal postal convention, and postal money-order service. (*Peruano*, Feb. 15, 1922.)

URUGUAY-SPAIN.

ARBITRATION TREATY.—A treaty of arbitration between Uruguay and Spain was signed in Madrid March 23, 1922, by the Uruguayan minister, Sr. Benjamín Fernández y Medina and the Spanish Minister of State, Sr. Joaquín Fernández Prida. (*El Día*, Montevideo, Apr. 29, 1922.)



PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

NEW SCHOOLS.—The President has issued a decree permitting the National Council of Education to found 41 additional primary schools in Buenos Aires and 150 schools throughout the Provinces, which, with the increased expenses of administration, calls for the expenditure of 3,700,000 pesos national currency from the funds in the Treasury, applicable to the needs of education.

OPENING OF UNIVERSITY.—The opening of the new National University of the Littoral in Santa Fe took place in that city on April 18. The Minister of National Public Instruction gave an address stating that the university embodied new forms of administration and

points of view which should make it a national benefit. In the new university are incorporated the schools of engineering, medicine, and economic sciences of Rosario. The second part of the program was held the following day in Rosario.

MUNICIPAL WEAVING SCHOOL.—The *Prensa* gives an account of the municipal weaving school of Buenos Aires. The average pupil, after some 70 lessons of 2½ hours each, can leave the school able to weave about 2 meters of cloth per hour. The last course graduated 60.

During the five months that the school has been open 122 women have learned the art of weaving. Of this number 30 were teachers who thus profitably employed their two months' vacation, and 14 were nuns connected with religious educational institutions for girls.

Through the courtesy of the Ambassador of Argentina some examples of Argentine hand weaving are on exhibition in the Pan American Building.

CHILE.

SCHOOL CENSUS.—A census of all the children of school age in the Republic was taken on April 25 and 26, 1922.

EXPOSITION AND ACTIVITIES, SOCIETY FOR THE PROMOTION OF MANUFACTURING.—See page 176.

COLOMBIA.

INTERCHANGE OF STUDENTS.—According to the *Prensa* of New York, President-elect Ospina, of Colombia, while recently in the United States, said that he hoped that his Government would encourage graduates of secondary schools to complete their education in the United States, especially in engineering, since English is coming to be the second language of Colombia. He himself hopes to foster the study of English and the interchange of students, so that young people from the United States may continue their study of Spanish in Colombia. General Ospina is himself a graduate of the University of California. His closing words were to the effect that neither treaties nor diplomats can make friends of peoples who do not mutually understand each other, but that commerce, the struggle for political liberty, and contact between two nations tend to cement close relations between them.

COSTA RICA.

SPANISH HISTORY NIGHT COURSE.—The National Library of San José on March 1 opened a night course in the history of Spanish culture for the Liceo students and others interested in the subject. The Spanish colony in San José, through the Spanish consul, suggested this course as a means of developing interest in the mother country from which Spanish Americans draw their language and customs.

CUBA.

SCHOOL OF COMMERCE.—A decree of September, 1921, created two schools in Habana for commercial employees, one for boys and one for girls. They were opened for the school year of 1921-22 in the Calzada de Jesus del Monte. The girls' school has 30 typewriters for the use of the students and offers the following subjects: English; typewriting and shorthand in English and Spanish; arithmetic; spelling; copy reading; penmanship; and salesmanship. Girls to be eligible for this school must be over 14 years of age, and must have completed the studies of the fourth grade of the public schools. Similar subjects were given in the boys' school. The past year's enrollment for the girls' school was 193, with an average attendance of 102, while the boys' school had an enrollment of 120 and an average attendance of 70.

GUATEMALA.

NEW SCHOOLS.—The following new schools were recently opened: Coeducational schools in El Trapiche, municipality of El Adelanto; in Monterrico, jurisdiction of Agua Blanca; in Nahualate, jurisdiction of Chicacao; and in La Florida, jurisdiction of Taphichillo. A boys' schools was reopened in San José Ixtal and a new school for boys in Tenedores, Department of Izabal. Schools for boys and for girls were opened in San Andrés Sajcabajá.

MEXICO.

OBLIGATORY CORN-CULTURE CLASSES.—The Department of Public Education and Fine Arts is putting into the schools obligatory classes in maize cultivation. Though Mexico raises wheat, rice, beans, fruits, vegetables, fiber plants, sugar, cacao, vanilla, and other products, her chief food is maize. The amount consumed, plus the cost of its grinding, represents a daily sum of about 1,000,000 pesos. The classes in corn culture are to be opened in 5,000 schools, which will have at least 1 square hectare of land each. The students are to be given selected seed and will raise a supply to be distributed to agriculturists later.

LABORERS' UNIVERSITY.—The Students' Federation has decided to found a laborers' university with the support of the Minister of Public Instruction. The faculty, which will include members of the Society of Biology and Related Sciences, will serve gratis.

PARAGUAY.

SCHOOL SOCIETY.—Upon the initiative of the principals of the Manuel Amarilla School in Asuncion, a parent-teachers society has been formed for the purpose of furthering education and culture.

The scope of the society includes: Increases in the school library and museum; Sunday classes for homeless children; instruction in hygiene for ignorant mothers, and a general welfare movement through the cooperation of the families whose children attend this school.

UNIVERSITY FRENCH CLASSES.—Under the auspices of the Alliance Française free classes in French are being given in the University.

SCHOOL APPROPRIATION.—The President approved the appropriation of 15,000 pesos for the completion of the school in Luque.

PERU.

UNIVERSITY OF SAN MARCOS.—After being closed for a year, the University of San Marcos, in Lima, founded in 1551, has been reopened as a private university. Dr. Manuel Vicente Villarán was elected rector by delegates of the various faculties, succeeding the late Dr. Javier Prado.

A decree of April 12, 1922, terminated Government intervention in the affairs of San Marcos, recognized it as a private university in accordance with Chapter VI of the education law, granted a subvention of Lp.3,750 for one year; and although allowing the university the use of certain Government property for university purposes, reserved ownership of it to the Government.

SALVADOR.

GYMNASIUM AND SCHOOL.—The former site of the Castillo Prison in Candelaria (San Salvador) is being prepared for the building of a gymnasium for school children, in addition to which the municipality expects to erect, within a year, a coeducational school near by.

SCHOOL SANITARY INSPECTION.—See page 201.



ARGENTINA.

CENTENARY OF ACADEMY OF MEDICINE.—The Buenos Aires Academy of Medicine held the celebration of its centenary on April 17. The first attempt to regulate the medical profession in Buenos Aires was the creation of the "Tribunal del Promedicato" by royal order on September 18, 1799, to preserve the inhabitants of the River Plate region from quackery and other evils. In 1813 this tribunal was converted into a medical institute, and on April 9, 1822, the decree was issued which created the Academy of Medicine.

The centenary ceremonies included the awarding of prizes to students, and the inauguration of the cancer institute, the first of its kind in South America. The director of the new institution is Dr. Angel H. Roffo, who has made extensive studies of cancer, winning the Academy of Medicine's centenary prize for original unpublished theses on scientific subjects, with a brilliant treatise on cancer. This treatise was later adopted by the Italian Red Cross as containing valuable information in regard to the development and treatment of the disease.

HOSPITAL ESPAÑOL.—A new three-story building for women has been added to the Spanish Hospital of Buenos Aires. Other enlargements and improvements, including X-ray and electrotherapeutic sections, have also been made.

PARK AND STREET LIBRARIES.—The Laborers' Popular Library Association has recently formed a municipal section to take charge of the placing of libraries in public parks and streets.

RENTALS REGULATION LAW.—See page 186.

BOLIVIA.

SANITARY PLUMBING.—See page 186.

BRAZIL.

PREVENTIVE MEASURES AGAINST EPIDEMICS.—See page 187.

CHILE.

DENTAL SERVICE.—A dental clinic, in charge of Señorita Delia Ajiellet, director of the Odontological Review and chief of the dental division of the school medical service, has been opened in connection with one of the milk stations in Santiago supported by the Patronato de la Infancia. It will treat both mothers and children.

Dental care as well as medical is also to be given by the recently opened dispensary of the Centro Juventud Israelita. The physicians and dentists in charge will be assisted by students, among whom are several young women.

PARRAL RED CROSS CHAPTER.—In recognition of the excellent work done by the Red Cross chapter at Parral, the Charity Commission has given it a house worth 30,000 pesos and an annual subvention of 7,000 pesos. The chapter has a clinic for adults and children, with a section for venereal diseases and also a first-aid division. It holds public lectures on child training, community spirit, hygiene, health education, and similar subjects. It cooperates in all civic works, such as bridge repairs, street cleaning, fire department service, and protection to labor. It has three free vaccination stations in the city and traveling service in the rural districts. Hundreds of school

children and more than 6,000 country people, besides city residents, are members.

SCHOOL LUNCHESES.—Free school lunch rooms were inaugurated in three more Santiago schools in May by the society of women organized for this purpose.

CATHOLIC SOCIAL WELFARE WEEK AND CONVENTION.—In May a week's meetings were devoted to a discussion of social problems in their different phases, all Catholics, both lay and clergy, being invited to attend. The program was prepared by the Centro Nacional de Cultura Social y Apologética. This was followed by a large convention of Catholic young women from all parts of the country.

SOCIETY FOR THE PROTECTION OF ANIMALS.—The Santiago society of this name has issued its sixth annual report, which describes the work carried on during 1921. Kindness to animals is especially encouraged among children; 850 essays were submitted for a prize offered by the society. The clinic for dogs, cats, and birds has already been mentioned in the *BULLETIN*. The Valparaiso branch received from the Santiago society the gift of an ambulance for injured horses, the declivities in that city being especially dangerous. Posters containing "The Petition of the Horses" have reached many hands, and in many other ways the society is doing excellent work. There is a branch in Iquique, as well as in Santiago and Valparaiso.

REVISION OF IMPORTANT LAWS.—See page 187.

EXPOSITION AND ACTIVITIES, SOCIETY FOR THE PROMOTION OF MANUFACTURING.—See page 176.

COLOMBIA.

EMPLOYEES' WELFARE.—The National Director of Hygiene has issued a set of requirements for employees' welfare which must be fulfilled by persons or companies engaged in petroleum operations. Such companies must supply proper living accommodations, defined by the regulations, and adequate food; they must provide proper sanitary arrangements, draining off stagnant water or covering it with petroleum; and they must employ properly certificated physicians, one for each 400 workers, and give the necessary treatment for diseases. Applicants for employment shall be given a physical examination and none suffering from communicable diseases, such as tuberculosis or venereal diseases, shall be employed. Hospitals shall be provided for those needing hospital care.

TEMPERANCE CAMPAIGN.—The Director of Hygiene, Department of Bolivar, has appointed a committee to organize a departmental league against alcoholism, which will act conjointly with the national league.

LIFE INSURANCE.—The municipality of Bogota has been empowered to take out life insurance for municipal employees, no policy to

exceed 2,400 pesos. The beneficiaries will be the wife or relatives of the deceased.

WATER PURIFICATION.—The water of Bogota is now purified by the use of chlorine gas, thus securing a satisfactory supply free from dangerous germs.

DRINKING WATER.—The city of Barranquilla has received 200,000 pesos in Government bonds and Buenaventura 100,000 pesos for the purpose of providing an adequate drinking-water supply. A commission has been created in each city to take charge of the work.

COSTA RICA.

RED CROSS.—The Costa Rican Red Cross, organized in 1917 and reorganized in March, 1920, has been recognized by the International Red Cross Committee as the official organization of that country.

PREVENTION OF HOOKWORM DEPARTMENT.—This department is giving smallpox vaccinations free to school children.

SCHOOL OF NURSING.—Twenty-three students are taking the two years' course in the San José school of nursing. They receive lectures alternately in the Hospital of San Juan de Dios, the School of Medicine, and the Department of Prevention of Hookworm. The cities of Santo Domingo de Heredia, Las Cañas, and Tibás maintain obstetric and general nursing scholarships in this school in order to have competent care for the sick of their districts.

LATIN AMERICAN RAILROAD FEDERATION.—A branch of this association, recently formed in Costa Rica, has sent a delegate to the seat of the organization in Mexico City. Its objects are the improvement of conditions for railroad men, the foundation of a school of engineering, with scholarships available to all the member countries, and fair wages for the various grades of railroad work.

CUBA.

ASYLUM FOR TUBERCULAR CHILDREN.—The Government has ceded to the Maria Jaén Protective Association for Tubercular Children a parcel of 232,500 square meters of land on the north shore in Habana, bounded on the south by the road from Fuerte de San Diego, on the east by the lands of Battery No. 1, and on the west by the target range of the Cabaña Encampment.

SIXTH LATIN AMERICAN MEDICAL CONGRESS.—The Government has appropriated \$50,000 for the Sixth Latin American Medical Congress, to be held at Habana in November. All sanitary equipment, supplies, and products imported for the international exhibition of the Congress will be admitted free of duty.

MEDICAL DELEGATES.—Drs. Julio Arteaga, Eugenio Albo, Fernando Remsoli, and Francisco Javier de Velasco were sent as medical dele-

gates to the Third Conference of the International Antituberculosis Union, held in Brussels July 11-13.

ECUADOR.

HYGIENE EXPOSITION.—From May 26 to June 4 a hygiene exposition was held in Quito as part of the Pichincha Centenary Celebration, to show progress and practice in public and personal hygiene.

GUAYAQUIL WATER SUPPLY.—Guayaquil, as mentioned in the BULLETIN for January, 1922, is to have an additional supply of drinking water. The consul general of the United States in Guayaquil, whose communication appears in the United States Commerce Reports, states that the project for the water supply calls for an expenditure of 1,000,000 sucres annually for three years. When the work is finished it is expected that the daily quantity of water supplied to the city will have been increased from 3,300 cubic meters to 20,000 cubic meters, the amount having been gradually augmented as the different parts of the system are completed and connections made. September, 1924, is the date set for completion.

The work will comprise the installation of two lines of subfluvial pipe, 14 inches in diameter (now in place and successfully tested, according to *El Telégrafo* of May 4); one 22-inch pipe line from Duran to the tanks at San Rafael; and one 18-inch line from San Rafael to the mountains; and also water receivers, tanks, pressure regulators, filters, and sterilization plants. At present the 18-inch pipe is being laid between San Rafael and Bucay and will be placed in service immediately upon completion.

GUATEMALA.

LABOR.—A lot in Guatemala City has been presented by the Government to the labor organization "*El Porvenir de los Obreros*." It will be used as the site for the society's building.

DONATION TO HOSPICE.—The National Hospice has received a donation of 20,000 pesos national currency from Señora Enriqueta de Ortiz and Señorita Rosa Ruiz in memory of their aunt, Doña Mercedes Solís.

HOOKWORM PREVENTION.—The Department of Hookworm Prevention has informed the principals of all Santa Ana schools and academies that these institutions will be inspected by a department official to see whether the children are provided with certificates showing that they have taken the prescribed treatment.

The hookworm campaign in general is progressing satisfactorily, those who fail to comply with the regulations being fined.

HAITI.

NATIONAL PRISON.—*Le Matin* of March 30 gives an interesting account of the régime in force at the national prison for men and

women. The first thing which strikes the attention, says the reporter, is the perfect cleanliness. There is an infirmary for the examination of prisoners, a hospital, and an isolation ward. Shower baths are provided for the use of the prisoners. The prison physician is carrying on experiments in regard to the amount of vitamins necessary in the diet to avoid pseudo beriberi, and makes out well-balanced menus in accordance with his observations. Men prisoners may learn to become tailors, cabinet makers, masons, carpenters, or shoemakers, and are paid for their work. This money is either given to them at the end of their term or paid to their families if their sentence is long. The women do sewing, at which they can make from a gourde and a half to two gourdes a day.

HONDURAS.

ROCKEFELLER FOUNDATION.—Physicians of this great institution, with Dr. Augustín Santiago Brizio, director general of the health department, came from Tegucigalpa to the towns of the Honduran Atlantic coast and to San Pedro Sula to establish a district office and laboratory for the campaign against yellow fever and hookworm. The local authorities will cooperate with the sanitarians of the Rockefeller Foundation, thus to secure the liberation of the population from the vitiating hookworm and to eliminate the possibility of the dreaded yellow fever.

PRACTICAL SEWING LESSONS.—For some of the poor pupils of a San Pedro Sula School, dresses were made by girls of the fourth and fifth grades from materials donated by various individuals and business houses.

MEXICO.

ANNUAL SANITATION CONVENTION.—Resolutions formed by the National Department of Health included plans for an annual national sanitation convention to bring local health authorities into closer touch with the National Department of Health. The president has issued a decree providing for such annual conferences in Mexico City, the delegates to be the directors of the State health bureaus and the chief of the National Health Department or his representative. The first of these conventions took place June 12-17.

PASTEUR ANTIRABIES TREATMENT.—The Department of Public Health, through the press, calls the attention of the public to the location of the Pasteur Institute on Calle de los Héroes, Mexico City, where anti-rabies treatment is given free.

WOMAN MAGISTRATE.—On May 21 a woman, Señora Dolores Arriga de Buck, was elected magistrate of the supreme court of justice of the State of San Luis Potosí, Mexico. Her candidacy was cordially supported by the governor of the State, who said that he should be

pleased to have San Luis Potosí the first State in the Republic to elect a woman judge.

JOURNALISTS' SANATORIUM.—Upon the initiative of the owner of *El Universal* a journalists' sanatorium is to be opened for newspaper writers and journalistic workers in ill health. The buildings are to be located on Chapultepec Heights, where the cornerstone was laid June 6.

NICARAGUA.

ASYLUM FOR BEGGARS.—The city of Granada, on April 16, opened an asylum for needy persons and on the same date issued an ordinance against begging.

PANAMA.

AMERICAN SURGEONS' VISIT.—Over 1,300 Fellows of the American College of Surgeons are planning to visit Panama in February, 1923. They are desirous of being present at the laying of the corner stone of the Gorgas Memorial, which will probably take place at that time.

NURSES' TRAINING SCHOOL.—The Santo Tomás Hospital training school for nurses was opened nearly 14 years ago and was reorganized in 1916. The course is 3 years in length and has at present 16 in training in the first year, 13 in the second, and 11 in the third, who will graduate in January, 1923. The school was opened December 14, 1908, by Doctor Obaldia, with a class of 30 nurses. Many difficulties had to be overcome, since it was difficult to find American-trained nurses who spoke Spanish to train the undergraduates. After the reorganization took place, primary education courses were given to the students as well as daily lectures on nursing by the visiting and staff physicians. Thus the class of girls who then entered the school was given a better foundation for the work.

The school, which is conducted like schools of nursing in the United States, has now overcome the difficulty of a lack of Spanish textbooks on nursing. Whereas early in its history only uneducated girls would take up nursing as a career, now daughters of some of the city's best families are entered as students. School-teachers, normal-school graduates, musicians, and bookkeepers have entered the school, which goes to show how the public has been educated to respect a nursing career for women.

SCHOOL LUNCH ROOMS.—A communication from the Inspector General of Instruction to the Director General of the Pan American Union states that school lunch rooms have been started in several towns, and that some municipalities are devoting a portion of their funds to the purchase of clothes and shoes for poor children.

PARAGUAY.

TUBERCULOSIS LECTURES.—Professor Andreatti of the University of Vienna gave a series of stereopticon lectures on tuberculosis and its

specific treatment in the medical school. Professor Andreatti also gave information relative to tuberculosis prevention and the hygiene of its treatment.

MILK STATION.—The Gota de Leche or milk station section of the Department of Public Assistance received a donation of 10,000 pesos from the Society for the Protection of Poor Children.

PERU.

MATERNITY PRIZE.—The Government, deeming it a duty of the State to stimulate by every possible means the increase and strengthening of the race, has offered two houses as annual prizes to the two mothers—one of the middle and the other of the lower class—who have the largest number of healthy children.

LABOR AND SOCIAL WELFARE COUNCIL.—See page 188.

COMMISSION FOR CHILD WELFARE.—See page 189.

SALVADOR.

GOTA DE LECHE.—A monthly report of the Gota de Leche (free milk station) showed that in March 18 mothers were registered to receive milk for their babies, bringing the total up to 164. During the month 81 consultations were given, and 68 prescriptions filled free of charge.

In order to insure the purity of the milk given out by the Gota de Leche it has been subjected to three analyses by the Bureau of Sanitation, and is daily analyzed in the office of the Gota de Leche.

Popular lectures on infant care and feeding are given at the milk station twice a week for the benefit of inexperienced mothers. On each Sunday babies are brought to be weighed, and their height is measured once a month to determine if each child is growing properly. The institution, through the press, requests all needy mothers to bring their babies to the station, that they may benefit by receiving expert advice and free milk prepared according to the proper formula.

SCHOOL SANITARY INSPECTION.—All public and private schools are now subject to sanitary inspection before the opening of the school year, one week after and six months after opening. The ventilation, playgrounds, furniture, and sanitary arrangements are all to be considered with regard to the number of pupils in the school. No place may be utilized as a school without permission of the General Sanitation Bureau, and each school is to be under the medical direction of a doctor responsible to the Bureau of Sanitation for its hygienic conditions. Teachers are required to have certificates of good health, issued either by the doctor in charge of the school sanitation, or by the Sanitation Bureau . . .

PREVENTION OF HOOKWORM.—The weekly report of the Department of Hookworm Prevention for the week ending April 1, showed that 1,055 persons had been added to the registry; 1,906 received microscopic examination; 1,081 had hookworm; 728 other parasites; 625 received first treatment; 608, second treatment; 264, third treatment; 66, fourth treatment; 44, fifth treatment; 13, sixth treatment; 8, seventh treatment; and 249 were treated for other parasites. After the second treatment 635 were examined and 277 cured; after the third treatment, 200 examined and 117 cured; after the fourth treatment, 73 examined and 24 cured; after the fifth treatment 22 examined and 9 cured; after the sixth treatment 13 examined and 5 cured; after the seventh treatment 2 examined and 1 cured. Three hundred and fifty-four pamphlets were distributed during the week and 98 consultations given.

X-RAY STUDENT TO UNITED STATES.—The medical school and Rosales Hospital have chosen Dr. Rafael Vega Gómez, jr., to take a course in X-ray work in New York. On his return he will conduct the X-ray work and electrotherapy in the hospital for five years.

URUGUAY.

HOME FOR ORPHANS.—The Rotary Club of Montevideo, composed of both Uruguayan and foreign members, intends to found a home for orphans in which they will receive proper moral, physical, and intellectual training. This club was represented at the recent International Rotary Club convention in Los Angeles.

MEDAL TO DOCTOR LUISI.—The National Council of Uruguayan Women recently presented a gold medal to Dr. Paulina Luisi, founder of the Council, and prominent for her interest in public problems. She was acclaimed as the woman who has known how to give practical form to feminism in Uruguay, and the leader whose love for the cause is equaled only by the difficulties overcome.

VENEZUELA.

SCHOOL FUND.—The children in the Instituto Bolívar of Caracas are putting their savings into a school bank or fund for the following charitable purposes: (1) To maintain a physician to attend to all sick children of the school; (2) to pay the cost of medicines used for poor pupils, and in the case of death to pay the funeral expenses; (3) to carry out a patriotic program on national holidays connected with the life of Bolívar and offer a banquet to poor children, each child inviting a certain number of guests; and (4) to contribute in part to all school ceremonies, including meetings to increase the cooperation between home and school.

GENERAL NOTES

ARGENTINA.

BENAVENTE.—The well-known Spanish author, Sr. Jacinto Benevente, has been giving a series of lectures in Buenos Aires. He has been received with much enthusiasm and has lectured to large audiences. The trend of his thought is toward reconstruction, harmony, and peaceful order.

ARGENTINE ARTISTS.—The autumn salon was opened in May in Rosario with works of recognized national artists, as well as many pictures by younger painters.

The clever young artist López Naguil has returned to Argentina after a long stay in Spain. On May 15 he opened an exhibition of his work in Buenos Aires. His canvases are said to show fine composition and a clear sense of values. "El Pijove," "Winter," and "Spring in the Orchard" are studies of individual trees rather than landscapes and are particularly fine.

METRIC SYSTEM.—United States Senator Edwin F. Ladd, of North Dakota, sent a questionnaire to Argentina to learn the opinion in that country in regard to the metric system of weights and measures. Señor Noé, the Argentine representative of the *BULLETIN*, replied in detail to the questions, and, among other statements, added that in his opinion the adoption of the metric system in the United States would advance commercial relations with the American countries where its use is obligatory. Nearly all have adopted it.

MONUMENT IN WASHINGTON.—Señor Noé informs the *BULLETIN* that a public subscription is being raised in Buenos Aires for the erection of a monument to San Martín in Washington, which the Argentine Ministry of Foreign Relations has asked the Government of the United States for permission to erect. The statue will weigh about 5 tons and will be made of Argentine material, Córdoba granite and San Luis onyx.

NATIONAL PARK IN PATAGONIA.—The Government has issued a decree setting aside 785,000 square hectares of land in Patagonia as a national park. The idea first originated in 1903, when Dr. F. P. Moreno turned back to the Government 3 leagues of land bordering on Lake Nahuel Huapi, located in the Andes near the Chilean border, which he received as a gift in recognition of his work as an explorer. This region of mountains, forests, and lakes is one of marvelous beauty.

Hunting will be prohibited, as well as the destruction of trees and flora, the utilization of falls for water power, or anything which destroys the natural beauty of the region. The park will soon be accessible by means of the State railways to be constructed. The village of Bariloche will then be the starting point of automobile roads and bridle paths through the lake country and the valleys and mountains of the national park. Lake Nahuel Huapi is mentioned as the terminal point of the journey described in the article "A Trip through the Chilean Switzerland," published in the BULLETIN for July, 1922.

FEMINIST CANDIDATE.—In the recent elections for National Deputies Dr. Julia Lanteri Renshaw ran as feminist candidate for deputy from Buenos Aires.

BRAZIL.

POPULATION.—The statistical office of the Ministry of Agriculture has published the following figures resulting from the census taken on September 1, 1920, showing that the total population of the Republic on that date was 30,635,605:

Federal District and States.	Population.	Federal District and States.	Population.
Federal District.....	1, 157, 873	Parahyba do Norte.....	961, 106
Alagoas.....	978, 748	Paraná.....	685, 711
Amazonas.....	363, 166	Pernambuco.....	2, 154, 835
Bahia.....	3, 334, 465	Piauí.....	609, 003
Ceará.....	1, 319, 228	Rio de Janeiro.....	1, 559, 371
Espírito Santo.....	457, 328	Rio Grande do Norte.....	537, 135
Goyaz.....	511, 919	Rio Grande do Sul.....	2, 182, 713
Maranhão.....	874, 337	Santa Catharina.....	668, 743
Matto Grosso.....	246, 612	São Paulo.....	4, 592, 188
Minas Geraes.....	5, 888, 174	Sergipe.....	477, 064
Pará.....	983, 507	Acre Territory.....	92, 379

The State capitals were shown to have the following population:

Capitals.	Population.	Capitals.	Population.
Aracajú.....	37, 440	Natal (Rio Grande do Norte) ..	30, 696
Belem (Pará).....	236, 402	Nitheroy (Rio de Janeiro)...	86, 238
Belo Horizonte (Minas Ge- raes).....	55, 563	Parahyba (Parahyba do Norte)	52, 990
Curityba (Paraná).....	78, 986	Porto Alegre (Rio Grande do Sul).....	179, 268
Guyaba (Matto Grosso).....	33, 678	Recife (Pernambuco).....	238, 843
Florianopolis (Santa Catha- rina).....	41, 338	São Luiz (Maranhão).....	52, 929
Fortaleza (Ceará).....	78, 536	São Paulo (São Paulo).....	579, 033
Goyaz (Goyaz).....	21, 223	São Salvador (Bahia).....	283, 422
Maceió (Alagoas).....	74, 166	Therezina (Piauí).....	57, 500
Manáos (Amazonas).....	75, 704	Victoria (Espírito Santo).....	21, 866

Other large cities were:

Cities.	Population.	Cities.	Population.
Campos (Rio de Janeiro).....	175, 250	Rio Preto (São Paulo).....	126, 796
Theophile Ottoni (Minas Geraes).....	163, 199	Juiz de Fora (Minas Geraes)...	118, 166
Caratinga (Minas Geraes).....	137, 017	Campinas (São Paulo).....	115, 602
		Santos (São Paulo).....	102, 589

CENTENNIAL DELEGATION.—Mr. Carlos Sampaio, commercial attaché of the Brazilian Embassy, and a notable delegation have been touring the United States to call the attention of the American public to the Centennial Exposition. Miss Bertha Lutz, secretary of the Museo Nacional, who was the Brazilian official delegate to the Pan American Conference of Women, was an important member of the delegation.

THE AIR VOYAGE FROM LISBON TO RIO DE JANEIRO.—The successful air trip recently effected from Lisbon to Rio de Janeiro by the intrepid Portuguese aviators Scadura Cabral and Gago Coutinho is being celebrated with equal enthusiasm on both sides of the Atlantic. At the suggestion of Senhor Mario Walter, a Portuguese writer, steps are being taken to present to the two aerial heroes a beautiful album, placed in a case of wrought gold, and containing messages on the great achievement and autographs from the Portuguese and Brazilian leaders, from President Epitacio Pessoa, of Brazil, and President Antonio José de Almeida, of Portugal; from the members of the governments, parliaments, diplomatic bodies, and in short from the cultural centers of the world. D'Annunzio is expected to write a message for foreign aviators and Santos Dumont another, especially in behalf of Brazilian aviators. The album will also contain photographs of Gago Coutinho's invention and illuminations made by Portuguese painters. It is planned that this gift to the Portuguese aviators shall be presented by Presidents Pessoa and de Almeida on the occasion of the Centennial Exposition of Brazil, and that 100 copies of the album, signed by Gago Coutinho and Scadura Cabral, shall be sold at auction in Portugal and Brazil, the returns of the sale to be utilized to buy two hydroplanes. These are to be named "Brazil" and "Portugal," the former to be presented to Portugal and the latter to Brazil.

CHILE.

SPANISH PAINTINGS.—The fourth exhibition of Spanish paintings, including examples of the work of Romero de Torres, Sorolla, Pradilla, Navarro, Álvarez de Sotomayor, and other modern artists, was shown in Santiago in April.

TELESCOPE IN MINE SHAFT.—Professor Todd is now supervising the scientific work connected with the building of a giant telescope to

be erected in a mine shaft in Chile. The shaft is to be 60 feet in diameter, which will theoretically give a magnification of 25,000,000 times. This would bring Mars within about a mile and a half of the earth—that is, optically—so that any life or activity upon its surface would be readily observable. Only a small part of the planet would thus be observed, it is true, and the spot would be moving rapidly past the telescope, but it is thought that enough could probably be observed to insure some positive conclusions. In 1924 Mars will be within 35,000,000 miles of the earth, so that observations made at that time would be under the most favorable conditions.

COLOMBIA.

LEAGUE OF NATIONS COMMISSION.—Dr. Francisco J. Urrutia, Colombian delegate to the last two assemblies of the League, has been honored by being selected as one of seven additional members of the League Commission on the Reduction of Armaments.

HISPANO-AMERICAN ACADEMY.—The Colombian branch of this academy was installed at Bogotá in May.

COSTA RICA.

COSTA RICAN COMPOSER.—Sr. José Castro Carazo, the Costa Rican composer and orchestra leader, has received much favorable comment from the press of New Orleans, where he has been giving a series of weekly symphony concerts under the management of the Symphony Federation.

ECUADOR.

AMERICAN MINISTER.—Dr. G. A. Bading, the new American Minister to Ecuador, has arrived with his wife in Ecuador. Doctor Bading has had much experience in practicing medicine in tropical countries, having been in the United States Public Health Service, in the Army Medical Corps during the war, and in other important posts.

WOMAN SCULPTOR.—Señorita Rosario Villagómez, an Ecuadorean sculptor, made the bust of Don Francisco de Orellana, founder of Guayaquil, ordered by the centenary celebration committee to be placed in the mall of Rocafuerte Avenue, Guayaquil.

OLYMPIC GAMES.—As part of the celebration of the centenary of the battle of Pichincha olympic games were held in Quito.

GUATEMALA.

FINE ARTS SCHOOL EXHIBITION.—The exhibition of the fine arts school was opened in May with 35 pictures by the Guatemalan artist Gálvez Suárez, and the work of the art students for the first quarter of the year.

DELEGATE TO LATIN AMERICAN CONFERENCE.—Dr. Manuel F. Rodríguez, of the Law School of Guatemala, was appointed by the President as delegate to the Conference of Latin American Relations, held in April at the University of Southern California, Los Angeles, Calif.

HAITI.

NEW PRESIDENT AND CABINET.—M. Louis Borno, a highly esteemed jurist, formerly president of the National Law School and member of the Hague Permanent Court of Arbitration, was elected President of Haiti on April 10 for a term of four years, beginning May 15, 1922. His election was the occasion of congratulations from all parts of the Republic. M. Borno has appointed the following cabinet: Secretary of Foreign Relations and Worship, M. Léon Dejean; Secretary of Public Instruction, M. Louis Auguste Guillaume; Secretary of the Interior and of Public Works, M. A. C. Sansaricq; Secretary of Finance and Commerce, M. Louis Ethéart; Secretary of Justice and Agriculture, M. Arthur D. Rameau.

HONDURAS.

NEWSPAPER.—The Law Students' Association has established a paper called "Renovación." Another new paper in Tegucigalpa is the illustrated morning daily called "Los Sucesos."

NICARAGUA.

WOMAN GRADUATE PHARMACIST.—Señorita Paquita Reyes has received the degree of doctor of pharmacy from the medical school, and after having complied with the requirements of the Ministry of Public Instruction will be ready to practice her profession anywhere in Nicaragua.

PANAMA.

GENERAL MELÉNDEZ.—The death in May of Gen. Porfirio Meléndez, former governor of Colón for many years, statesman and patriot, was greatly regretted by his fellow citizens.

PARAGUAY.

PARAGUAYAN POET.—Don Narciso R. Colmán, judge of the Criminal Court of San Roque, and author of "Ocara Poty" (Wild Flowers), a volume of verse in the native Guaraní language, was elected a member of the Twentieth International Congress of Americanists held in Rio de Janeiro August 20-30.

SALVADOR.

DEATH OF MINISTER.—Salvador declared a period of national mourning on March 23 and gave the military funeral rites of a general

to the late Don Baltazar Estupinián, Minister of Government, Promotion, and Agriculture. The late minister was an able journalist, jurist, and statesman.

URUGUAY.

NEW THEATER.—A beautiful modern theater is shortly to be built in Montevideo. The stage will be 19 meters deep and will have an opening of 17 meters. Especial attention will be paid to the dressing rooms for actors. The capacity of the ground floor will be 860, and above it there will be two tiers of boxes and two galleries, four galleries in all.

VENEZUELA.

PAN AMERICANISM.—The board of regents of the University of the Andes of Venezuela has sent the institutes and men of letters in the Americas a communication calling for a more perfect coordination of scientific, literary, artistic, and industrial effort throughout the countries of the Western Hemisphere. The communication suggests the publishing of a magazine in each of the large cities of the American countries for the purpose of making known the progress in science, jurisprudence, and general culture achieved in these countries.

PERU HONORS PHYSICIANS.—The Peruvian Academy of Medicine has elected Doctors Razelli, Juan Iturbe, and R. Pino Pou corresponding members in Venezuela, as their work in the laboratory, surgery, and the writing of scientific textbooks has been of distinguished service.



SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO JUNE 26, 1922.

Subject.	Date.	Author.
ARGENTINA.		
Annual report on commerce and industries for 1920.....	1922 Apr. 15	W. Henry Robertson, consul-general at Buenos Aires.
Condition of Buenos Aires banks at end of February, 1922.....	Apr. 17	Do.
Export taxes for month of April, 1922.....	do.	Do.
Cattle sales and prices in 1921.....	Apr. 19	Do.
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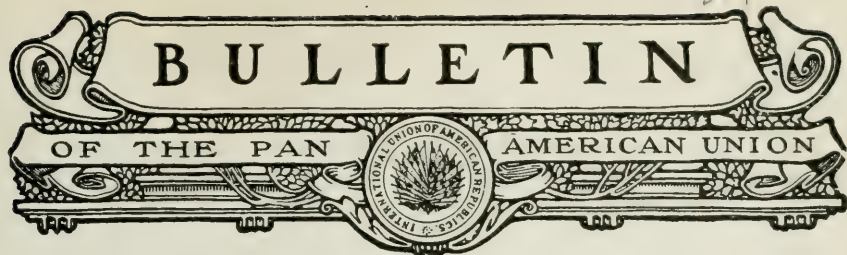
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THE SIGNING OF THE PROTOCOL AND SUPPLEMENTARY ACT AT THE FINAL SESSION OF THE CHILEAN-PERUVIAN CONFERENCE,
PAN AMERICAN UNION, JULY 21, 1922.

Seated at the table are: Sr. Don Melitón Porras, the Peruvian Delegate, who is in the act of affixing his signature, and Sr. Don Carlos Aldunate Solar, the Chilean Delegate. Standing behind the table, in the center, is Secretary of State, Charles Evans Hughes; on his right, Sr. Don Beltrán Mathieu, the Ambassador of Chile; and on his left, Sr. Don Federico Alfonso Pezet, the Ambassador of Peru.



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THE CLOSING SESSION OF THE CHILEAN-PERUVIAN CONFERENCE

THE high hopes and confident expectations cherished in the chancelleries of the American Republics during the last two months as to the ultimate success of the Chilean-Peruvian Conference in finding a way—in spite of apparently irreconcilable difficulties—to settle the controversy which has so long divided these two nations, have been, as the event proves, fully justified and measurably realized in the agreement recently signed in the Pan American Union, an agreement which is, to quote Secretary of State Hughes, “the greatest forward step in the interests of peace, on this hemisphere, which this generation has witnessed.”

The arbitration protocol and its supplementary act, the fruition of 10 weeks of keen, but always amicable, argument and discussion, whereby the conferees on behalf of their respective Governments agree to submit the controversy to the President of the United States, at whose invitation the conference was called, is not only a distinct triumph for President Harding, but a notable and far-reaching achievement on the part of the delegates themselves and the Governments they have so ably and loyally represented.

The signing of this agreement implies something more than the elimination of a generation-old source of irritation to the two nations directly involved; more even than the removal of the stumbling block which for more than 40 years has been a constant impediment and menace to the orderly progression of amicable relations between the American Republics in general. It means nothing less than the

taking practical shape and form of the Pan-American idea as conceived by Bolívar and, as Ambassador Mathieu well reminds us, formulated later by President Monroe. It is as if Pan Americanism were becoming clothed with flesh to dwell among us of this western world, as the definite herald of that American solidarity of mind and spirit so long predicated and so gradually approaching fruition.

To the friends of international arbitration and world conciliation the agreement to which the eminent Chilean and Peruvian delegates have so recently set their signatures can not fail to be a matter for outspoken rejoicing. Statesmen and diplomats, jurists, scientists, men of letters, financiers, educators, generous spirits everywhere, will welcome it as an unmistakable proof of the growing conviction that the reason and logic of even the most remote and least sympathetic of arbitrators is to be preferred to brute force, and as the harbinger of that not too distant day when the nations of the world will agree that "arbitration [even that which President Brum calls *Arbitración amplia*] is not an unreflecting abdication of national sovereignty but, on the contrary, the most eminently lucid exercise of that sovereignty."¹

The protocol and supplementary act were signed on July 22 in the Hall of the Americas in the Pan American Union at a public session, in the presence of the Secretary of State of the United States, Mr. Charles Evans Hughes, their Excellencies Sr. don Beltrán Mathieu and Sr. don Alfonso Pezet, the ambassadors, respectively, of Chile and Peru, and many other members of the foreign diplomatic corps and high officials of the United States.

The setting was simple in the extreme. The long green baize-covered table, across which the delegates had for so long confronted each other during their labors, was set midway along the south side of the stately Hall, in which it was the only spot of color, and to which the delegates were conducted by Dr. L. S. Rowe, Director General of the Pan American Union, Sres. Aldunate and Izquierdo, representing Chile, taking seats at the left, and Sres. Porras and Velarde, representing Peru, at the right, the secretaries grouping themselves immediately back of their respective chiefs, while the two councilors, Sres. Polo and Alvarez, were seated at either end of a small table provided with silver inkstands and writing materials directly in front of the larger.

The proceedings, which were impressively simple, began by Sr. Aldunate announcing that the text of the credentials, protocol and supplementary act would be read forthwith. The first were read by the respective councilors in turn. The protocol immediately followed, being read by Sr. Alvarez, the text of which is as follows:

¹ Descamps.

Protocolo de Arbitraje

Rembles y Washington, D. C. en conformidad a la invitación del Gobierno de los Estados Unidos de América, para procurar la solución de la larga controversia relacionada con las mercancías que se cumplieron del Tratado de Paz, de 20 de octubre, de 1895, los representantes, en representación de Chile y del Perú, a saber:

Don Carlos Alvarado y don Luis Rosales, por Chile, y don Juan José Alvarado y don

Diego Alvarado y don Juan José Alvarado, por Perú.

Don Manuel J. Pizarro y don Hernán Vial, por Chile, y don Francisco J. Pizarro y don

Francisco J. Pizarro, por Perú, al efecto de celebrar.

El presente protocolo de arbitraje, que se celebró en la ciudad de Washington, D. C., el día 10 de octubre de 1900.

Artículo 1.º—Queda en plena conformidad con el presente protocolo de arbitraje, el Tratado de Paz, de 20 de octubre de 1895, y el Tratado de Comercio y Consular, de 1890, entre Chile y Perú, y el Tratado de Comercio y Consular, de 1890, entre Perú y los Estados Unidos de América, y el Tratado de Comercio y Consular, de 1890, entre Chile y los Estados Unidos de América.

Artículo 2.º—Las partes al presente protocolo de arbitraje, se comprometen a someter a la decisión del Tribunal de Arbitraje, establecido por el Tratado de Paz, de 20 de octubre de 1895, y el Tratado de Comercio y Consular, de 1890, entre Chile y Perú, y el Tratado de Comercio y Consular, de 1890, entre Perú y los Estados Unidos de América, y el Tratado de Comercio y Consular, de 1890, entre Chile y los Estados Unidos de América, todas las cuestiones que se relacionen con el cumplimiento de los artículos 1.º y 2.º del presente protocolo.

Artículo 3.º—El presente protocolo de arbitraje, se celebró en la ciudad de Washington, D. C., el día 10 de octubre de 1900, y se firmó por los representantes de Chile y del Perú, a saber: don Carlos Alvarado y don Luis Rosales, por Chile, y don Juan José Alvarado y don Diego Alvarado, por Perú, y don Manuel J. Pizarro y don Hernán Vial, por Chile, y don Francisco J. Pizarro y don Francisco J. Pizarro, por Perú.

En fe de lo cual, se firmó el presente protocolo en la ciudad de Washington, D. C., el día 10 de octubre de 1900.

Carlos Alvarado *Luis Rosales*

Diego Alvarado *Juan José Alvarado*

Manuel J. Pizarro *Hernán Vial*

Francisco J. Pizarro *Francisco J. Pizarro*

Acta Complementaria

Acta complementaria al protocolo de arbitraje, celebrado en la ciudad de Washington, D. C., el día 10 de octubre de 1900, entre los representantes de Chile y del Perú, a saber: don Carlos Alvarado y don Luis Rosales, por Chile, y don Juan José Alvarado y don Diego Alvarado, por Perú, y don Manuel J. Pizarro y don Hernán Vial, por Chile, y don Francisco J. Pizarro y don Francisco J. Pizarro, por Perú.

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PROTOCOL OF ARBITRATION.

Assembled at Washington, D. C., pursuant to the invitation of the Government of the United States of America, for the purpose of arriving at a settlement of the long-standing controversy, with respect to the unfulfilled provisions of the treaty of peace of October 20, 1883, the Republic of Chile and the Republic of Peru have for that purpose named their respective plenipotentiaries, that is to say:

Don Carlos Aldunate and Don Luis Izquierdo, Envoys Extraordinary and Ministers Plenipotentiary of Chile on Special Mission; and

Don Melitón F. Porras and Don Hernán Velarde, Envoys Extraordinary and Ministers Plenipotentiary of Peru on Special Mission; who, after exchanging their respective full powers found to be in good and due form, have agreed upon, and concluded the following articles:

Article 1. It is hereby recorded that the only difficulties arising out of the treaty of peace concerning which the two countries have not been able to reach an agreement are the questions arising out of the unfulfilled provisions of article 3 of said treaty.

Article 2. The difficulties referred to in the preceding article will be submitted to the arbitration of the President of the United States of America, whose decision shall be final. The arbitrator shall give both parties opportunity to be heard, and shall take into consideration such arguments, evidence, and documents as may be presented. The arbitrator shall determine the periods within which the arguments, evidence, and documents shall be presented, and shall determine all questions of procedure.

Article 3. The present protocol shall be submitted to the approval of the respective Governments, and ratifications exchanged at Washington, D. C., through the intermediary of the diplomatic representatives of Chile and Peru, within the maximum period of three months.

In witness whereof, the respective plenipotentiaries have signed the above articles, and have hereunto affixed their seals.

Done in duplicate, at the city of Washington, this twentieth day of July, in the year of our Lord one thousand nine hundred and twenty-two.

Sr. Polo, the Peruvian counselor, then read the supplementary act, the text of which is the following:

SUPPLEMENTARY ACT.

In order to determine with precision the scope of the arbitration stipulated in article 2 of the Protocol signed on this date, the undersigned agree to place on record the following points:

1. The following question, presented by Peru at a session of the conference held May 27 last, shall be included in the arbitration:

"In order to determine the manner in which the stipulation of article 3 of the treaty of Ancon shall be fulfilled, it is agreed that there shall be submitted to arbitration the question whether, in the present circumstances, a plebiscite shall or shall not be held."

The Government of Chile may submit to the arbitrator such arguments in opposition as may be deemed appropriate for the defense of her rights.

2. In the event that the decision is in favor of the holding of a plebiscite, the arbitrator shall have full power to determine the conditions for the holding of such plebiscite.

3. Should the arbitrator decide that a plebiscite shall not be held, both parties agree, upon the request of either of them, to enter into a discussion of the situation created by the decision of the arbitrator.

It is understood, in the interest of peace and good order that, in this event and pending an agreement as to the disposition of the territory, the administrative organization of the provinces shall not be disturbed.

4. In the event that no agreement is reached as a result of the above-mentioned discussion, the two Governments will request the good offices of the Government of the United States, in order that an agreement may be reached.

5. It is agreed that pending claims relative to Tarata and Chilcaya are also included within the arbitration, in accordance with the final disposition of the territory, as referred to in article 3 of said treaty.

This act forms an integral part of the protocol to which it refers.

In witness whereof, the respective plenipotentiaries have signed the above articles, and have hereunto affixed their seals.

Done in duplicate, at the city of Washington, this twentieth day of July, in the year of our Lord one thousand nine hundred and twenty-two.

At the conclusion of the readings, Sres. Aldunate and Porras left their places to seat themselves at the small table already described where, on behalf of their respective Governments, each affixed his signature to the two documents, in duplicate, being followed in turn by Sres. Izquierdo and Velarde, who similarly added their signatures, thus completing the historic act.

After the delegates had resumed their seats, Sr. Aldunate made the following announcement and invitation:

With the signing of these instruments the formal sessions of the conference come to a close. In the name of both delegations, I beg to request the Secretary of State and ambassadors of the two countries represented at the conference to occupy places of honor at the conference table.

The invitation was immediately accepted, Mr. Hughes and the two ambassadors at once joining the delegates, whereupon Mr. Hughes addressed the delegates in the following remarks:

EXCELLENCIES: I extend to you my heartiest congratulations upon the agreement which you have been able to record as the result of the endeavors of this conference. This is a day of extraordinary achievement and promise. When at the opening of the conference I ventured to express the firm conviction that your zealous and well-directed efforts would be successful, none of us had any illusion as to the difficulty of the task before you. The controversy was one of long standing, and deep-seated convictions with respect to its merits had been formed in each country. The patriotic sentiment to which we look for the motive power of national progress had been evoked among both peoples in support of what were believed to be their just contentions. It would be difficult to conceive of a situation more fraught with danger or one with less promise of amicable adjustment. The conviction that, despite these serious obstacles, an agreement would be reached at this conference, was based on the noble purpose and conciliatory disposition which had been evinced by both Governments in the arrangements for the conference and upon the earnest desire of the delegates to reach a sound basis of accord. We now witness the fruition of our hopes and the vindication of our confidence.

To you, Excellencies, members of the Chilean and Peruvian delegations, permit me to express not only my felicitations upon this happy result, but my deep appreciation of your able and earnest efforts which have made it possible. In your intimate contacts and candid and forcible representations of your respective positions, conscious of your weighty responsibility, you have maintained the best standards of diplomatic endeavor in a grave exigency. You may return to your respective countries with the gratifying assurance that you have most ably and faithfully discharged your onerous duties and that this agreement represents no unreasonable sacrifice or disregard of any interest of your peoples but a plan of settlement fair to both

and which both have accepted with honorable regard for the interests of justice. You return with the assurance of the high esteem in which you are held by all who have observed your conduct of this difficult negotiation.

Will you permit me to add an appropriate recognition of the important and distinguished services rendered by Your Excellencies, the Ambassadors of Chile and Peru, in connection with the necessary preparation for this conference as well as in relation to its deliberations. Your helpful spirit has constantly been manifested and your aid has furnished additional evidence of the desire of your Governments to bring this conference to a satisfactory conclusion.

It is difficult to overestimate the desirability of this agreement in the interest of the peoples of Chile and Peru. It points to a new era of peace and prosperity, in which friendship may be cultivated and mutual interest and opportunities for cooperation will be safeguarded. But the advantage to the peoples of Chile and Peru, inestimable as it is, forms but a part of the benefits which will accrue from this conference.

I believe this to be the dawn of a new day in Latin America. This long-standing controversy has been a sore spot and this amicable adjustment is the healing which gives promise of the development of better relations throughout Latin America and of the promotion of the growth of sound opinion. It is a vindication of the processes of peace. It is easy to talk of the prevention of war, but inevitably there will be differences and serious controversies; and if these are not to be settled by force, there must be peaceful solutions which can be had only through the efforts of governments which determinedly seek peace and make it possible by providing for the contacts of honorable and reasonable men whose ability, ingenuity and wisdom will be utilized not to devise grounds for continuing differences but practical bases of agreement.

Once more under this hospitable roof success has attended direct negotiations in conference. May I say that in showing that it was possible to provide a plan for the amicable settlement of the Tacna-Arica controversy you have clearly indicated that no difference in Latin America is incapable of solution. This is the greatest forward step in the interest of peace on this hemisphere which this generation has witnessed. May it be the promise of an abiding tranquility and the reign of justice.

In conclusion, I am instructed by the President to express his high appreciation of the confidence which the Governments of Chile and Peru have manifested in the selection of the President of the United States as arbitrator, as proposed in the agreement, and the reference which has been made to the good offices of this Government in the contingency stated. The President desires me to state that he is ready to act in the manner which has been suggested, and to express his profound gratification at the achievements of this Conference and his deep interest in all that pertains to the welfare and prosperity of the peoples of the two Republics who have demonstrated their earnest desire for a helpful cooperation in the cause of peace and good-will.

At the conclusion of Secretary Hughes' remarks, there followed a most cordial and informal interchange of personal congratulations among the delegates, the Secretary of State and Ambassadors Mathieu and Pezet upon the consummation of this momentous act — the welding of national ties which make for American solidarity. A few minutes later Sr. Porras, on behalf of the Peruvian delegation, addressed the following remarks to the Secretary of State:

YOUR EXCELLENCY: This is both a solemn and happy moment, because the first decisive step toward peace and harmony in South America, where for many years both were uncertain or weakened in a considerable portion of the continent, has at last been taken. The Peruvian delegation declares that it feels honored and satisfied to have contributed its share to this auspicious issue and to have interpreted, in furthering this end, the ardent desire of its country.

But it is not we, or our distinguished colleagues representing Chile, who are the chief authors of this wholesome and beneficent achievement. The real author, as has already been given to understand, is that dominant desire which is to be found in the minds of the men who direct the destinies of this great Republic; it is that love of peace and of justice which has thus prompted them to institute this diplomatic meeting; to foster its development within the peaceful surroundings in which it has progressed and to bring it to fruition with such positive advantage to the contending parties.

Nevertheless, we accept, on our side, with feelings of profound thankfulness, the congratulations which Your Excellency has thought fit to address to us. If we may claim any merit at all, it is solely on the ground that we have known how to gauge and understand the loftiness of your aims and the efficacy of the means employed to secure their attainment. For this reason our gratitude is enhanced by a tribute of admiration and respect.

As indicated, a solution has been found, within practical and equitable bounds, in obedience to ideas, hall-marked by the most absolute impartiality.

Our task, now that we have traveled the road along whose sides bloom the emblems of harmony and fraternity, is to cast our eyes into the future, toward that goal which is yet to be attained, shining with the hope of justice, the coping stone of the work so felicitously begun.

We go forward, imbued with that same faith which upheld us during our hours of trial, and which as surely animates our opponents of yesterday. Our brows illumined by that unshaken faith, both they and we go to meet our happy future, for we feel that nothing can now prevent us from paying unrestricted homage to that mysterious and inscrutable force which, at unexpected moments, compels nations as well as individuals to recognize the existence on earth of something higher and worthier than selfish and worldly ends.

The example which has just been furnished is both glorious and far-reaching. That which is still to be given, when the work is completed, will be even more so.

And why, we ask, should not this example be the beginning on this continent of that dreamed-of golden age of international justice, an ideal which so many famous statesmen have pursued during these last few years?

Should this eventually come to pass, all honour will be due to the wise Executive who presides over the destinies of these United States, and to Your Excellency, who has already, and so successfully, carried out undertakings of this nature; for you will have made a living thing from that which has been, until now, a shadowy expectation with no hope of ultimate success.

We are proud, therefore, to declare our good fortune in that we have been witnesses to this latest proof of that high-mindedness which abides and bears fruit in the country to which you belong.

We wish, likewise, to assure you that we carry away with us the happiest memories of our stay in your beautiful city, to which is reserved a future of such unparalleled prosperity.

I would, in conclusion, request Your Excellency to convey to the President of the Republic the expression of our deepest gratitude for the generous and unstinted hospitality which we have enjoyed and which we can never forget.

At the conclusion of the prolonged applause which greeted Dr. Porras' remarks, Sr. Aldunate, expressing the feeling of the Chilean delegates, made the following remarks:

MR. SECRETARY, LADIES AND GENTLEMEN: Three months ago the delegates of Chile to the Conference which to-day is being brought to a close, came to Washington, animated by the desire to reach an agreement with Peru relative to the unfulfilled

provisions of the treaty of Ancon. They were determined to omit no effort to secure the realization of this desire in terms compatible with the legitimate aspirations of their country. In so doing, we followed the instructions of our Government, which on December 12, 1921, had taken the initiative to bring to a settlement the difference existing with our neighbor republic.

We have had the satisfaction to find in the Peruvian delegates, men inspired by the same purposes, but always mindful of the interests of their country. After prolonged deliberations, repeated consultations with our respective Governments, and agreements set forth in the minutes of the conference, we were able to localize the problem; placing on record that the only subjects concerning which the two countries had been unable to reach a settlement are the questions arising out of the unfulfilled provisions of article 3 of the treaty of Ancon. Inasmuch as the proposals relating to this subject were irreconcilable, we were compelled to abandon the idea of a direct settlement and agreed to submit the matter to the arbitration of the President of the United States, with certain special stipulations which are set forth in the supplementary act to the protocol, which we have just signed.

We have thus eliminated the cause of the strained relations that have existed between the two nations; nations which entered at the same time upon their independent national life, which have common traditions of glory and of sacrifice, and which have much to hope and expect from reciprocal cooperation in the road to further progress.

For the third time within the last 12 months, this great capital city is celebrating the successful outcome of conferences called for the purpose of settling international differences and of settling them by the rule of right and of reason before the great jury of universal opinion. To the President of the United States and to the Secretary of State, belongs the great honor of having made this procedure the order of the day by convening the Conference on the Limitation of Armament, which has given to the entire world an assurance of peace and tranquility, and a feeling of freedom in the great work of moral and material reconstruction of which humanity stands in such great need. This conference and the others of a more modest scope which have been held at Washington, blaze new trails in diplomacy and demonstrate that the method of free and direct settlement, involving voluntary arbitration, is superior to permanent tribunals, to general obligatory arbitration, and to the other plans conceived for the settlement of international differences.

Naturally, the system of free and voluntary settlement enjoys the greatest probability of success when it is undertaken under the auspices of an influential nation free from all entangling commitments with the interest at stake which, like the United States, has given such eloquent demonstration of international altruism.

To the far-seeing and statesmanlike President of the United States and to his eminent Secretary of State, both Chile and Peru owe, not only the generous invitation which enabled them to convene at Washington, but also the constant interest with which they have followed the deliberations of the Conference, the wise counsel which they were always willing to give, and which on more than one occasion removed difficulties which seemed insurmountable, and finally the acceptance by the First Magistrate of this Republic of the responsible duties of arbitrator. Chile will never forget these services. They constitute a new tie of fraternity with the American Union, and will always be remembered in the development of the multiple and fruitful relations which the future offers to us.

I must not close without expressing our deep sense of gratitude for the many personal attentions which we have received from the members of this Government and from the people of Washington, and especially to Dr. L. S. Rowe, Director of the Pan American Union, who has contributed so much toward making fruitful our work in this beautiful city.

The next to take the floor was Ambassador Mathieu who, together with his Peruvian colleague, has taken no small part in the furthering of the labors of conference. He expressed himself as follows:

MR. SECRETARY, LADIES AND GENTLEMEN: It is my privilege to perform the very grateful and pleasing duty of expressing to the President of the United States and to the American people the warm thanks of the Government and people of Chile for the generous hospitality accorded to our delegation at the conference which has just been held at Washington and which to-day brings its labors to a happy conclusion.

I am certain that amongst the principals and witnesses assembled in this building to participate in this happy ceremony there is one dominating thought—namely, that Pan Americanism is no vain and empty word.

The concept of Pan Americanism announced by Bolivar and formulated by Monroe is, to-day, being given practical realization by President Harding. He is making it a reality, in harmony with the spirit of this free people who, while deeply appreciating and enjoying their own liberty and independence, is fully capable at the same time of appreciating and respecting the rights and independence of other nations.

The conference now brought to a close marks a distinct epoch in the development of Pan Americanism, offering a great example and pointing the direction to future progress.

The Chilean-Peruvian Conference at Washington was held in the most favorable surroundings, enjoying ample official and social hospitality. Its work was carried on with the utmost freedom, far removed from outside pressure of any kind whatsoever.

When, in the midst of the natural and inevitable difficulties which arise in negotiations of this character, it was necessary to ask for advice, such counsel—wise, discreet, and opportune—was cheerfully given by the Secretary of State of the United States, the Hon. Charles E. Hughes, whose personality in the sphere of international relations has become the symbol of peace and good will.

I desire to express to the Secretary of State my deep and sincere thanks for his generous reference, in so far as I am concerned, to the cooperation of the ambassadors of Peru and of Chile. Perhaps, I can best express my appreciation by saying that it has always been a great pleasure and privilege to discuss matters of mutual concern and interest with a man of the broad statemanship of Mr. Hughes, a man who possesses in the highest degree that rare quality of personal magnetism, combined with a high sense of justice, which contribute so much toward making official relations not only easy and pleasurable but to a marked degree inspiring.

Ambassador Pezet was the last to address the audience, which he did in the following words:

MR. SECRETARY and EXCELLENCIES: Your very gracious words, Mr. Secretary, with reference to the part that I have taken as ambassador of Peru in preparing this conference and in relation to its deliberations and the significance you have given to my endeavors in these directions as evidence of the very manifest desire of the Government of Peru for a settlement of its controversy with Chile, compel not only my gratitude for the recognition you have been good enough to express but my acknowledgment on behalf of my Government of the very justified tribute you have paid it for the conciliatory spirit in which it entered upon this conference.

And, to-day, when we are here gathered to witness the achievement of a joint effort in the interest of American peace, may I be permitted to express through you, Mr. Secretary, to the President of the United States the sentiment of the President and Government of Peru in acknowledgment of the very disinterested assistance given to the cause of American amity through the timely invitation of President Harding to bring together in the serene atmosphere of this capital two peoples that had been for

so long estranged and who could not find a direct way to heal the wounds of war; and at the same time, express to you, Mr. Secretary, my Government's recognition for your own share in the happy result that has been attained due in no small measure to your kindly interest and friendly advice at moments of extreme crisis.

When I consider what it has been possible to achieve through the instrumentality of a friendly nation willing to help the cause of Americanism, I marvel that what we are to-day witnessing was not accomplished before, and I have to confess that verily the American world owes a debt of gratitude to President Harding and Secretary Hughes.

I would indeed be remiss if at this moment when we are writing history, I did not, as ambassador of Peru, pay my tribute of respect and admiration for my colleagues, their excellencies, the members of the Peruvian delegation, who have borne the burden of a most onerous responsibility with the courage and determination of men who, while realizing the magnitude of the undertaking, understood the whole significance of its bearing on the life of the nation.

And in closing may I not say a word in behalf of Pan Americanism, with which I have long been associated through years of work in cooperation with the men who have done so much to foster it and make it a real issue on our American Continent. It is to it that we should always look to create that lasting bond between our nations which in the last analysis will make us a united people.

Under this hospitable roof—as much the home of Peruvians as of Chileans—we have been able, at last, to come together, and so to the present director general of this peaceful institution, Doctor Rowe, is due recognition for the arrangements and care in all details that have helped so materially to ensure the success of the conference, and I take this opportunity to extend to him the gratitude of Peru.

And lastly, may I not express in the name of all who have been directly interested in this conference the recognition of the good work done by the gentlemen of the press who, although bent on giving to the outside world the greatest amount of information as to the progress of the work accomplished within the conference room, have been ever mindful of the very delicate nature of the questions in debate and acted accordingly with the utmost circumspection, thereby avoiding to the delegates themselves greater difficulties.

As the echoes of the applause which greeted Sr. Pezet's remarks were dying away, Sr. Aldunate arose and in his most impressive manner closed this memorable conference with the words: "The session is now adjourned."

Later, in commenting on the results of the Chilean-Peruvian Conference, Dr. L. S. Rowe expressed himself in the following words:

The happy outcome of the Chilean-Peruvian Conference, bringing to an end a controversy that has extended over a period of nearly 40 years, is an event of great historic importance, and marks a distinct step in the development of Pan Americanism.

In reaching this agreement, so satisfactory to both nations, the delegates of Chile and Peru, ably seconded by their respective ambassadors, have rendered a service not only to their respective countries, but to the entire American Continent. This irritating controversy has hung like a pall over the international relations of the American Continent. The agreement reached at Washington therefore opens a new epoch in the history of inter-American relations.

It is evident that if the difficult and delicate problems involved in this controversy lend themselves to a process of adjustment through conference, all other international questions confronting the Republics of the American Continent can be settled by the same orderly and effective procedure. Throughout these conferences both delegations have shown a broad statesmanship of which they may well be proud and which reflects great credit on their respective Governments.

That this important agreement should have been reached at the Pan American Union is a source of deep satisfaction to everyone connected with the institution and furnishes a further demonstration of the great service which such an international organization can perform to the cause of peace and good feeling on the American Continent.

It must, furthermore, be a source of deep gratification to every citizen of the United States to realize the important contribution made by Secretary Hughes to this historic and significant conference. The confidence reposed in him by both delegations as well as by the Governments of Chile and Peru contributed in no small measure toward solving the series of difficulties encountered in the course of the negotiations.

Since 1884, the status of the Provinces of Tacna and Arica has been the subject of an almost endless series of negotiations between the two countries, but these negotiations have always proved fruitless because of the early development of a deadlock and the absence of an impartial third party to bring the two Governments to a common basis of agreement. It will be to the everlasting credit of the United States, and, especially, to the distinguished Secretary of State, that the deadlock which developed in the course of the Washington negotiations was but the prelude to a final and satisfactory solution.

Both Chile and Peru have given to the world an example of which they may well be proud, and which is certain to react favorably on all the other international problems now confronting the Republics of America.

The BULLETIN joins its readers and all lovers of international conciliation and friendship in rejoicing on the felicitous ending of the conference just celebrated and in looking forward, hopefully, to the next step in the settlement of the Tacna-Arica controversy which will, doubtless, still further extend the realization of hopes long cherished by every sincere adherent of the Pan American ideal.

BRIEF SUMMARY OF THE DEVELOPMENT OF THE CONTROVERSY.

It may not be amiss to give here the causes of what has come to be known, latterly, as the Tacna-Arica controversy between Chile and Peru, one of the sequelæ of the War of the Pacific originating in certain unfulfilled clauses of Article 3 of the Treaty of Ancon.

Even in the early periods of discovery and conquest the riches of the vast mineral areas in Peru and Chile were well enough known to become a matter of fierce dispute between Pizarro and Almagro, originally friends. But the particular desert coastal region, destined to become the source of a bitter and costly war, was for several centuries after the arrival of the Spaniards regarded as practically worthless.

In the early years of the nineteenth century, however, both explorers and colonists became gradually aware of the immense deposits of nitrate of soda contained in these regions and still more gradually of their enormous value. By 1830 the nitrate industry was fairly organized, the production amounting in that year to 8,000 tons, much of which was obtained in what was then Bolivian soil. It should be noted that both the Province and port of Antofagasta at that time belonged to Bolivia.

As the years passed, nitrate production increased greatly both in Chile and Bolivia, but particularly in the latter. In the course of this development controversies arose, naturally enough, as to the respective boundaries of nitrate lands in the two countries, which culminated, finally in the early seventies in the rupture of relations and the declaration by Bolivia, on March 1, 1879, of war against Chile.

Soon after the opening skirmishes of what has been known as the "War of the Pacific," Peru was drawn into the controversy as a friend or ally of Bolivia, so much so that, on April 5, 1879, Chile declared war on Peru, military preparations and operations becoming active from that date in all three countries.

Perhaps in all history no warfare was ever conducted over a more rugged area. Barren in many parts, devoid of crops or vegetation, without adequate water for troops, it included many miles of precipitous coast on the numerous ports of which the guns of Chilean and Peruvian warships alternately poured a deadly fire. For four years, from 1879 to 1883, the war was waged with almost incredible heroism on both the Peruvian and Chilean sides. Villages were almost wiped out of existence, cities suffered irreparable losses, ships battered against each other until sunk in the sea, and thousands of the best and most heroic men of the three countries found untimely graves. Not until the Treaty of Ancon, signed on the 20th of October, 1883, in the little summer resort of that name near Lima, was peace established; and it is the hitherto irreconcilable differences of opinion with regard to the time and manner of fulfilling certain clauses in Article 3 of this treaty, with respect to the taking of a plebiscite in the Tacna-Arica district to determine the nationality of that area and its inhabitants, which the conference so happily closed on July 22, has at last submitted to the arbitration of the President of the United States.

It should be noted that the area commonly known as Tacna-Arica extends 100 miles, approximately, along the Pacific coast, and inland about 40 miles, making in form a rough parallelogram. The population in 1918 was given as 39,357. From the port of Arica, situated about midway of the coast line of the Province of Tacna, a railway extends to the town of Tacna, 40 miles inland, which has a population of about 10,000. From the port of Arica another railway extends to La Paz in Bolivia, a distance slightly under 300 miles. The Province, while mostly barren and rugged, has a few small streams that flow westward, producing sufficient moisture for the cultivation of grain, alfalfa, fruits, and vegetables. The surface contains minerals, including nitrate.

FEDERALISM IN LATIN AMERICA

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WHEN the Spanish colonies in America undertook, early in the nineteenth century, to gain their independence from the mother country, the political and economic situation in Latin America pointed to the Federal plan of government as the logical scheme of organization for the new political entities that were to emerge from the struggle. There were four main political divisions in Spanish America which seemed to offer natural bases for the establishment of independent units, for the enormous extent of the Spanish dominions, the sparsity of their population, especially of the white or half-breed population in whom the powers and duties of government had inevitably to center, and the tremendous difficulties of communication, made a union of all the Spanish American colonies, such as occurred in the British colonies of North America thirty-five years earlier, impossible. Bolívar, it will be remembered, did indeed dream of a United Latin America, but this dream was never realizable.

The four vice royalties of Mexico, New Grenada, Peru, and La Plata were the natural divisions into which independent Latin America might have been expected to fall. Within these major divisions there were captaincies general and presidencias which constituted natural governmental units for the formation of Federal States, since they had each had their own identity and governmental jurisdiction and organization before the period of independence. Though theoretically subordinate to the viceroy in military and administrative matters, a strong sense of localism and a distrust and dislike of the vice-regal authority made the subordination of the captaincies general and presidencias to a centralized government at the seat of the former vice royalty virtually impossible after independence. As a matter of fact we find early in the period of independence a division corresponding roughly to this division into vice-royalties. Mexico for a brief period during the reign of Iturbide comprised everything north of the Isthmus of Panama. Great Colombia under Bolívar's domination from 1819 to 1830 comprised the territory of the former vice royalty of New Grenada. The revolutionary government of Buenos Aires claimed jurisdiction over the territories included in the former vice royalty of La Plata. Chile,

however, having attained her independence first and having herself materially aided in the final overthrow of Spanish power in Peru, became an independent unit, separate from the vice royalty of Peru of which she had been a part in colonial times.

But the conditions of the country, the strongly developed sense of particularism, and above all the personal ambitions of military chiefs, prevented the continuation of these natural groupings. Central America, largely distinct as the captaincy-general of Guatemala from the vice-royalty of Mexico, separated itself from that country in 1823. Great Colombia in 1830 broke up into the three independent countries of Venezuela, New Granada, and Ecuador. Bolivia, Paraguay, and Uruguay detached themselves from the Government of Buenos Aires in the years following the earliest declarations of independence. There were thus, by the end of the second decade of the nineteenth century, eleven independent States in Spanish America instead of four, as might naturally have been expected. Brazil, separated from Portugal in 1822, was at this time a centralized Empire.

Of these 11 Spanish American States 5—Mexico, Central America, Venezuela, Colombia, and the Argentine—were organized on the Federal principle, for within these States the Provinces had developed ideas of autonomy which made them hostile to any plan of centralized government. In some of the other States also, notably Ecuador, rivalries and jealousies between provinces, districts, and even municipalities threatened the establishment of effective centralized governments. In the years 1838 to 1842 the Central American Federation broke up into its component parts, owing to this same spirit of local rivalry and autonomy, and in 1886 Colombia, after a prolonged and bitter struggle between the federalist and unitarian factions, went to the opposite extreme and substituted the unitary for the federal scheme of government. This left but three Spanish American Republics, Mexico, Venezuela, and Argentina, organized on the federal principle, to which was added in 1889 the State of Brazil, after the overthrow of the Empire. Of the protracted and interesting struggle between federalists and unitarians in the three Spanish American countries that have retained the Federal principle of organization to this day, and of the repeated attempts to revive the Central American Federation, the most recent of which failed this present year when on the eve of accomplishment, it is impossible to speak within the limits of this discussion. All that can be attempted is a rapid summary of the outstanding features of the present day Latin American federations, Mexico, Venezuela, Argentina, and Brazil.

It is a platitude to say that in the organization of the Federal States of Latin America the Constitution of the United States of

North America served as a model. This was inevitable, since the Declaration of Independence of 1776 had exerted such a profound influence on the leaders in the struggle for Latin American independence, since the United States had shown such unmistakable signs of sympathy with the Spanish colonies in that struggle and had promulgated the Monroe doctrine as a protection against their renewed subjection by European powers, and above all since the United States was the only important country of the world operating under a Federal Constitution at the time the new republics were formed in Spanish America. Even Brazil, which at the time of her establishment as a Federal Republic had the constitution of the German Imperial Federation before her as a model, followed closely the ideas and even the phraseology of our own instrument. But it is a mistake to assume that there was in these countries a mere slavish repetition of the text of our Constitution without any reference at all to local peculiarities, or that such local peculiarities were not taken into consideration in the subsequent alteration and development of their constitutions. Above all, is it a mistake to assume, as is frequently done in stereotyped treatments of the government of these Latin American States, that the actual operation of their constitutions, similar though these be in phraseology to our own, reflects an accurate image of the operation of our own constitutional federal system.

For purposes of convenience in a summary treatment such as this, the main features of federalism in Latin America will be compared with federalism in the United States under four main heads as follows: The organization of the Federal Government; the constitutional distribution of powers between States and Nation; the process of amendment; and the actual balance between central and local authorities.

In the organization of the Federal Government we may note first of all that the doctrine of the separation of powers as applied in our own Constitution has been perpetuated in those of the Latin American federations; indeed in three of them ¹ it is expressly emphasized in a special article.

In the election of President we find an interesting variation in the provisions of the Latin American Federal constitutions. In the United States the Federal feature is emphasized in the election of the Chief Executive by the device of the electoral college, which makes each State a unit in the choice of the President and gives to each State two electoral votes corresponding to its representation in the Senate, in addition to voting strength according to population as evidenced by representation in the lower House. The development of political parties resulting in the electoral vote of each State being

¹ Mexico, Venezuela, and Brazil.

cast in its entirety for the candidate whose party polls the most votes in the State, no matter how small its lead may be, has still further emphasized the importance of the States as political units in this country. This device of indirect election is found only in the constitution of the Argentine, the President being chosen by direct popular vote in Mexico and Brazil, and by the Congress in Venezuela. Both of these latter methods of electing the President were considered and rejected, it will be remembered, by the Philadelphia Convention of 1787.²

In the constitution of the legislature in the Latin American federations, the bicameral principle has been followed and the Federal principle of equal representation of the States in the senate has likewise been adopted. Each State is represented by two senators, save in Brazil where there are three. The earlier United States practice of election by the legislatures of the States is followed in the Argentine and Venezuela, but in Mexico and Brazil direct popular election of senators is found as in the United States since the adoption of the seventeenth amendment. None of the Latin American federations has adopted the six year term for senators³ but the device of partial renewal has been followed in all but one, Venezuela. An interesting departure from our own practice in the composition of the Latin American Federal senates is the equal representation of the Federal district in Mexico, Argentina, and Brazil. In the constitution of the lower chamber the principle of representation of the States according to population has been followed, and the election is by direct popular vote as in this country. The most important departure from the American practice is to be found in the fact that suffrage and elections for national officers are regulated by Federal constitutional and legal provisions, and not left as in the United States (subject of course to the provisions of the fourteenth, fifteenth, and ninth amendments) to the individual States. Of interest also, in the composition of the lower house of the national legislature, is the universal practice in the Latin American federations of according

² There are other divergencies from the North American model in the organization and position of the Executive in the Latin American Federations, which while not involving principles of federalism may be of sufficient interest to merit passing mention. Foremost among these may be noted the provisions found in all four of the Latin American federations, as well as in the States organized on the unitary plan, requiring the countersignature of a minister or ministers for every act of the Executive. This is one example of the influence exerted by European, especially by French, principles of governmental organization on the Latin American States. Another example of the same sort is the insertion of provisions expressly granting to the President the power of supplementary legislation, by executive ordinance or decree. Such a power has not only not been expressly granted to the President of the United States in the Constitution, but has been developed only to a very slight degree when compared with the European practice. A third feature of interest found in Mexico and Venezuela is the abolition of the office of vice president. In both of these countries the office formerly existed on the American model, but was abolished in the newest constitutions. The same development has occurred in the most recent constitutions of Uruguay and Peru and has been advocated in other Latin American countries. It is rather curious that whereas in the United States the vice presidency has been ridiculed as an insignificant and useless office, there seems to be a marked tendency in Latin America to abolish it as a dangerous institution.

³ Nine years in Argentina and Brazil, four years in Mexico, and three years in Venezuela.

to the Federal district representation in proportion to population. These provisions with regard to the federal district are in marked contrast to the treatment accorded in this country to the District of Columbia, the inhabitants of which are completely disfranchised for national as well as local elections.⁴

In the relations between the executive and the legislature the provisions of the United States Constitution have been pretty accurately followed in the Latin American federations, save in Venezuela where the President is not only elected by the Congress but enjoys no power of veto. On the other hand, in Venezuela the President is not subject to impeachment by the Congress, but by the Supreme Court. But the power of intervention, the power to declare a state of siege, and the political importance of the President, make him an even more powerful factor in the government of the Latin American federations than he is in the United States of North America. This fact is perhaps sufficiently emphasized by the constitutional prohibitions on reelection, in Argentina and Brazil until after the expiration of an equal term, in Mexico perpetually.⁵

In the organization of the Federal judiciary, the Latin American constitutions have in general followed rather faithfully the provisions of our own fundamental law. There are interesting variations, it is true, such as the selection of the judges of the supreme court by Congress in Mexico and Venezuela, the office of the *procurador general*, and others. But while these departures from the North American model afford further evidence of the readiness of the Latin American States to modify our institutions to suit their own circumstances, they do not involve any of the elements or principles of federalism and hence need not be further considered here.

In taking up the second main head of the considerations of the federal form of government in Latin America, namely the constitutional distribution of powers between States and Nations, we come at once to the most important and most difficult of presentation of these chief divisions. As a comparison in minute detail of the distribution of powers in the four Latin American federations with such distribution in the United States is manifestly beyond the limitations of such a presentation as this, only some of the more general and outstanding phases of the question will be presented.

A word may be said at the outset regarding the origin of the powers of the States in the various federations, as this has been adopted as one criterion of true federalism by some political scientists, notably by German jurists. From this point of view a true federation exists

⁴ Other interesting departures in the organization of the lower house of the Federal legislature in Latin American States are the three-year terms in Venezuela and Brazil, and the four-year terms with partial renewal in Argentina. Minority representation for elections to the lower house is prescribed in the Argentine and in Brazil, and in Venezuela and Mexico the constitution provides for the election of alternates for each of the deputies chosen.

⁵ In the latest constitution of Venezuela this very general Latin American prohibition has been omitted.

when the powers of the component units are original powers, whereas a devolution of powers by a central government to its subdivisions will never result in the establishment of a true federation no matter how extensive such devolution may be. In the formation of the United States of North America, it will be recalled, the revolutionary elements in the individual colonies conceded to the Continental Congresses certain powers, and to the Confederation under the articles of 1781 still further powers. The Constitution of 1787 likewise was essentially a surrender of powers by independent entities to the Federal Government, the powers retained by the States being inherent and original, not derived, powers. In the Latin American federations the situation was somewhat different. In Brazil, for instance, the Provinces under the Empire possessed no inherent powers and there was never an interval during the brief period of transition from the unitary Empire to the Federal Republic in which the Provinces exercised independent powers. Similarly in Mexico the centralized power of the Spanish vice regal Government was assumed by the revolutionary government of Iturbide, and there was no interval of time between the beginnings of the revolutionary movement in that country and the establishment of the Empire in which the Provinces were independent sovereignties. The calling of the constituent assembly and the Federal constitution of 1824 were, therefore, acts of a central authority conceding powers to the component parts of the later federation. The situation was similar in Venezuela, where the first steps toward independence were taken by a revolutionary junta at Caracas which succeeded to the powers of the deposed captain general and called a constituent congress composed of representatives from the various districts which framed the first Federal constitution. These districts had no independent existence either during the colonial period or under the first revolutionary government. Moreover, the Federal constitution of 1811 never actually went into effect because of the virtually complete suppression of the revolutionary movement and the reestablishment of Spanish authority in the following year. Under the first real government following the final expulsion of the Spaniards, not merely the Provinces of Venezuela, but the former captaincy general itself exercised only such limited powers as Bolívar consented to accord them.

In the Argentine the situation was somewhat different. The Provinces of the River Plate were, it is true, united at the close of the colonial period under the jurisdiction of the viceroy of Buenos Aires, and did not, like the British colonies of North America, constitute separate entities directly under the control of the overseas Government. But the revolutionary junta of 1810 was itself a body composed of representatives of the capitals of the Provinces and of the districts within them. The provisional government of

1811 was a Federal type of government and the declaration of independence of 1816, like our own declaration of 1776, was the act of representatives of the individual units within the former vice royalty. The situation there approached, therefore, more closely than in the other instances that in the United States of North America.

Turning now from the question of the origin or source of powers to an examination of their nature and extent, it may be noted first of all that the declaration of the tenth amendment of the Constitution of the United States⁶ is reproduced in essence, and even in almost the same phraseology, in the constitutions of the Latin American federations.⁷ In the three Spanish American federations, whatever may be said of the origin of the powers of the States, the constitutional theory holds that the States are bodies of reserved powers and the nation a government of delegated powers. In Brazil the States are at least authorities of general powers, while the Federal Government is an authority of enumerated powers. It is to be noted, however, that the constitution of Brazil expressly announces the doctrine of implied limitations on the powers of the States.

In this survey of Latin American federations the consideration of the actual extent to which governmental powers have been conferred upon the Federal Government on the one hand and denied to the States on the other will be limited to a summary of the more important features in which they depart from the North American model.

In the Argentine the chief variations from the North American model consist in a more complete and extensive enumeration of the powers of the Federal Government. So the nation is expressly authorized to impose export duties; to establish a national bank; to promote industry; mining, railroads and canals; and to grant subsidies to needy Provinces.⁸ Of much greater significance than any or all of these powers, is the express delegation of power to the National Congress to enact civil, commercial, penal, and mining codes. This power of uniform legislation is one of the most powerful of unifying factors, the absence of which in the United States of America has been increasingly deplored. Of interest, but of relatively little importance, is the power of the Federal Government in the Argentine in relation to the Roman Catholic Church, which the constitution makes it the duty of the nation to support. Perhaps

⁶ "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively or to the people."

⁷ Constitution of the Argentine Nation, Art. 104: "The Provinces retain all the powers not delegated by the present constitution to the Federal Government, and those which they expressly reserved, through special agreements at the time of their coming into the Union." Constitution of the United States of Brazil, Art. 65: "The States shall have the right * * * to use in general any power or right, not denied to them by a provision, expressed or implied, of the constitution." Constitution of the Mexican Republic, Art. 124: "All powers not expressly vested by this constitution in the Federal authorities are understood to be reserved to the States." Constitution of Venezuela (1914), Art. 19: "The States * * * retain full sovereignty so far as not delegated by this constitution * * *."

⁸ The States are called by their old name "Provinces" in the Argentine.

the most fundamental distinction between the position of the Federal Government in the Argentine and in this country flows from provisions of the Argentine constitution which are in wording very similar to provisions in our own Federal instrument. These are contained in articles 5 and 6 and are of sufficient importance to merit quotation in full:

ART. 5. Each Province shall adopt its own constitution, which shall provide for the administration of justice in its own territory, its municipal system, and primary instruction, such constitution to be framed upon the republican representative plan, in harmony with the principles, declarations, and guaranties of the national constitution. Upon these conditions, the Federal Government shall guarantee to each Province the enjoyment and exercise of its institutions.

ART. 6. The Federal Government shall have the right to intervene in the territory of the Provinces in order to guarantee the republican form of government or to repel invasion; and when requested by the constituted authorities, to maintain them in power, or to reestablish them if they shall have been deposed by sedition or by invasion from another Province.

This language does not necessarily confer upon the Federal Government in the Argentine any powers which could not have been construed out of the corresponding provisions in the Constitution of the United States.⁹ But, whereas in the United States, this provision has never been made the basis of intervention by the Federal Government in the internal affairs of the States, in the Argentine there have been no less than 50 instances of active intervention by the Union, either to uphold existing State authorities or to supplant them, acting under one of the clauses of articles 5 and 6 quoted above. The result has been, of course, to make the provincial or State governments quite subordinate politically to the National Government, and particularly to the national administration, since the President may order intervention on his own motion if the Congress is not in session. The significance of this feature of the Argentine Federal system in differentiating it from our own can hardly be overemphasized.

Finally, there remains to be mentioned the fact that in the Argentine, the Federal Government is given express power to declare a state of siege in the whole or any part of the Republic in case of foreign invasion or domestic disturbance, with the consequence of suspending the individual guaranties. This power, exercisable by the Congress, or by the President and the Senate in case of foreign invasion, or by the President alone during the recess of the Congress, has been exercised on numerous occasions, and constitutes an important Federal power not possessed by the National Government in the United States.¹⁰

⁹ Art. IV, Sec. IV. "The United States shall guarantee to every State in this Union a republican form of government, and shall protect each of them against invasion; and on application of the legislature, or of the executive (when the legislature can not be convened) against domestic violence."

¹⁰ The power of the Federal Government under Article 1, section 9, paragraph 2 of the U. S. Constitution to suspend the privilege of the writ of habeas corpus in cases of rebellion or invasion when the public safety may require it, is neither so broad, nor has it been invoked in any such manner in the United States, as has been the case with the above-mentioned provision of the Argentine constitution.

Important respects in which the Argentine system follows our own in the distribution of powers between States and Nation include the Federal character of the citizenship and the power of the Federal judiciary to determine questions concerning the relative powers of the two Governments.

In Brazil, as in the Argentine, the Federal Government is given a larger extent of powers than is conferred on the Union by the Constitution of the United States. Chief among such powers may be mentioned the power to determine the conditions and methods of elections for Federal offices throughout the country; the power to grant subsidies to needy States; the power to enact codes of civil, commercial, and criminal law and procedure; the power to declare a state of siege involving the suspension of the individual guaranties; and the power of the Federal Government to intervene in the affairs of the States in order to repel foreign invasion or the invasion of one State by another, or to maintain the republican form of government, or to reestablish order and tranquility in the States at the request of their respective governments, or to secure the execution of Federal laws and judgments. It will be seen at a glance how closely the provisions of the constitution of Brazil resemble those of the Argentine constitution in these respects. Moreover, in the exercise of these powers the practice in Brazil has followed closely the developments in the Argentine. This is especially true of the power to grant subsidies to needy States, a power which, it is true, is also exercised in the United States, though without express warrant of the Constitution, in the practice of granting Federal aid for education and road building, but which in Brazil as in the Argentine has resulted in a very large measure of dependence on the Federal Government by the economically weaker States. Similarly, the power of Federal intervention has been used in Brazil in such a way as to subordinate the politics of the states to those of the National Government. On the other hand, it may be noted in passing that the power to tax exports, which in the United States is forbidden both to the Nation and to the States, and which in the Argentine is granted to the Federal Government, is in Brazil expressly left to the States.

In Mexico we find variations from the division of powers as between State and Nation established in the United States which present somewhat the same situation as in Argentina and Brazil. But the Mexican constitution presents peculiar features of its own which merit mention even in the briefest survey. The legislative power of the Federal Government extends beyond the limits indicated in the United States to include legislation on all matters relating to mining, commerce, and institutions of credit. It will be noted that this grant is less extensive than the ones commented on in discussing the legislative powers of the congress in the Argentine and Brazil. On the other hand, the whole domain of public health,

with extensive police powers, is assigned in Mexico to the Federal Government. Furthermore, all general means of communication are in Mexico made subject to Federal jurisdiction. The express power to establish secondary and higher institutions of learning is given in Mexico as in the Argentine and Brazil to the Federal Government, a power which the Federal Government in the United States possesses only by implication. The power of Federal intervention in the political affairs of the States is expressed in the Mexican constitution as well, though there the power is intrusted to the senate. The Mexican constitution, not content with prescribing a republican form of government for the States, goes into considerable detail prescribing the qualifications, term of office, and ineligibility to re-election of State governors, the minimum number of representatives in the State legislature and their election by single member districts, and the organization and powers of the free municipalities to be established within the States. Furthermore, the State governors are bound to publish and enforce the Federal laws, and both they and the members of the State legislatures are liable to impeachment by the national House of Representatives for violation of the constitution and the Federal laws.

The power of suspending the personal guaranties is lodged in Mexico in the hands of the President and the Council of Ministers, and gives the Federal authorities a powerful weapon of control over local affairs. Perhaps the most interesting features of the recent constitution of Mexico are the provisions laying down the basic principles of social legislation by which the State and National Governments are to be guided, and the provisions relating to the national ownership of all minerals and fuels. This last-named provision is found in the famous Article XXVII which has been the subject of so much discussion in connection with the diplomatic relations between the United States and Mexico.

In Venezuela the legislative power of the Federal Government includes the power of enacting general codes of law and procedure, thus reproducing the broader legislative powers of the Federal Governments in the other Latin American federations, as contrasted with the situation in the United States. As in Mexico, the Federal constitution prescribes in detail the form of government which must be adopted by the States. The control of education is expressly vested in the Federal Government. The power of suspending the constitutional guaranties, save the one prohibiting the death penalty, is lodged in Venezuela, as in Latin America generally, in the executive. A power of Federal intervention is granted in less comprehensive terms in the Venezuelan constitution, being limited to the power of using the military forces of the Union in case of armed conflicts between the States and in case of armed rebellion in any one of the States. But this power, combined with the power of suspending the constitutional guaranties, affords an opportunity for Federal interference with local

conditions which has not been employed in the United States of America. In Venezuela, as in Brazil and Mexico, the State governments are designated as agencies for executing the national constitution and laws, and the presidents and other high officials of the States are impeachable before the Federal supreme court.

The manner of amending the Federal constitution, though properly one aspect of the division of powers between States and Nation, is sufficiently distinct and of sufficient importance to warrant its consideration apart from the other aspects of that phase of federalism discussed above. Indeed, the relative participation by the Nation and the States in the process of changing the Federal constitution, has been regarded by some jurists as the true criterion by which to determine whether a given government is a real federation or a unitary government with a large measure of autonomy in the constituent parts. For this reason the amending process in the Latin American federations will be considered in comparison with the provisions of our Constitution in that regard.

In the Argentine the States as such do not share in the amending process at all. The National Congress by a two-thirds vote declares the necessity for amendment and a special convention called for that purpose frames and adopts the amendment, without the necessity of ratification.¹¹ This is closely analogous to the system of constitutional amendment adopted in the unitary government of France, though there the legislature in joint assembly acts as the constituent convention. In Brazil the initiative in proposing amendments is granted to two-thirds of the States, if petitioning within a year by majority votes of their legislatures. But the National Congress, by petition of one-fourth of the members of either chamber, may also initiate amendments, if approved by a two-thirds vote in both chambers. But in either case such amendments are not declared adopted until approved in the following year, after three readings, by a similar vote in the Congress. In that case they become effective without ratification by the States or the people thereof.¹² In Mexico the amending process is patterned more closely on our own, for amendments adopted by a two-thirds vote of both chambers of the Congress must be approved by the legislatures of a majority at least of the States.¹³ The share of the States in the amending process is greatest in Venezuela, where the States both share in the initiative (by action of three-fourths of the state legislatures) and have the power of final ratification of all amendments whether proposed by the States or by the Congress. In the former case ratification by a majority of the State legislatures is sufficient. In the latter case

¹¹ Constitution of the Argentine, Art. 30.

¹² Constitution of Brazil, Article 90. In Brazil not only the equal representation of the States in the senate, but also the Federal republican character of the Government are put beyond the power of amendment.

¹³ Constitution of Mexico, Article 135.

the approval of three-fourths of the legislatures is required.¹⁴ The Venezuelan plan approaches most closely, therefore, that of the United States, so far as participation in the amending process is concerned, whereas in Argentina and Brazil the States as such scarcely function in the amending process.

In this connection it must be pointed out, moreover, that as the Federal courts have not even in the Argentine attempted any extensive use of the power to declare laws of the National Congress unconstitutional and invalid, there exists the possibility of changes or amplifications of the constitution occurring by the simple process of legislation. This is by no means an uncommon occurrence in the countries of Europe where the doctrine of judicial supremacy has not been accepted, and examples of national laws passed in the ordinary process of legislation which are really more or less marked amendments to the constitution are not unknown in the Latin American federations. In this way the already large control over alterations in the fundamental relations between the States and the Nation which is possessed by the Federal authorities in those States may be still further increased.¹⁵

From the foregoing presentation of the organization and powers of the Federal Government in the Latin American constitutions it will have become sufficiently clear that as a whole it may be said that the principle of centralization has been carried much further in Latin American federations than in our own. This is true if only the formal texts of the fundamental instruments are concerned. It is even more true, however, if the actual workings of the Government are examined. Some idea of the way in which the balance of power has been inclined toward the central government in those countries has already been conveyed in the reference to the exercise of the powers of Federal aid, Federal intervention, and the power to declare a state of siege. A no less important factor in this centralization is the dominant position of the executive in Latin America. He has in the Latin American federations virtually all the legal authority enjoyed by the President of the United States. But in a political way his position is vastly stronger, and as authority exercised by one man is much more effective than when divided among a number, this paramount position of the executive has inevitably resulted in more centralization of power in the National Government than if the Congress, comprising as it does representatives of the States, shared more largely in the actual political powers. It is not surprising, therefore, to find that in the Latin American federations many voices are being raised against the eclipsing of the States by the Federal Government, a protest the like of which is heard even in this country of relatively extensive States' rights.

¹⁴ Constitution of Venezuela, Articles 130-134.

¹⁵ It must not be overlooked, of course, that in the United States of America this expansion of the Constitution has also been carried on by a Federal agency, namely, the Supreme Court in its decisions. But here at least it requires participation by the three independent branches of government to accomplish such an end.

COMMERCIAL AVIATION IN LATIN AMERICA¹ ∴ ∴

By WENDELL PHILLIPS BIESER,

United States Air Service, Officers' Reserve Corps.

WHILE it is true that the Great War left in its passing a wake of unfortunate legacies, it is also a fact that commercial aviation to-day owes its development largely to the war. It would not be too much to say that before 1914 flying in general received little attention, but that nowadays the airplane is making its appearance in the remotest parts of the globe and that commercial flying is of substantial importance.

The development of commercial aviation in Latin America may be said to have commenced with the close of the war, although Santos Dumont, one of the pioneers in flying, was a Brazilian. While certain of the South American Republics maintained military and naval planes before 1914, most of Dumont's work was done in Europe, and in this article we are not concerned with flying for war purposes.

Few parts of the world can use the airplane to greater advantage than Latin America, as transportation facilities are lacking there in many places. Many places which could be reached in a few hours by air line will not for many years be connected by rail because of intervening mountain ranges or wilderness.

After the war and consequent upon the really amazing development of commercial flying in Europe and the United States, English, French, Italian, German, and American companies sent their representatives to Latin America to push their respective interests as much as possible. The development has resulted in the sale of airplanes, the establishing of regular air routes wherever possible for the transport of passengers, mail, and valuable freight, the training of civilian pilots, the establishment and equipment of aerodromes, and the carrying of passengers on business or pleasure bent.

In Argentina alone during the year 1921 the Curtiss Aeroplane Export Corporation, an American company, flew its ships a total of 2,434 hours, for a distance of 316,725 kilometers. They carried 5,788 passengers without a single accident to either passenger or plane other than one broken landing gear and propeller. It is therefore not hard to see the reason for the constantly increasing use of the airplane all over Latin America. At present this same company has

¹ From *The Grace Log*, March-April, 1922.



Courtesy of *The Grace Log*.

AERODOME ON THE OUTSKIRTS OF BUENOS AIRES.



AIRPLANE IN FLIGHT OVER BUENOS AIRES.

aerodromes in Argentina, Brazil, and Peru, and they are now arranging for the establishment of similar aerodromes in Chile, Colombia, and Bolivia. In many instances ranch owners in Argentina are using airplanes to reach their outlying sections quickly and comfortably.

According to a report from Buenos Aires development of regular airplane passenger service between Buenos Aires and Montevideo has just been achieved and hereafter two round trips will be made weekly, in addition to other air voyages of special urgency. On the first trip four passengers and a quantity of correspondence were transported.

The direct air route between Key West and Cuba, also an American enterprise, is an established success.

Some time ago a Brazilian flyer, using an American machine, carrying one passenger, covered the distance between Rio de Janeiro



ONE OF THE AIRPLANES USED IN THE RIVER PLATE AVIATION COMPANY'S SERVICE BETWEEN BUENOS AIRES AND MONTEVIDEO.

and Buenos Aires in 15 hours' actual flying time, a distance of over 1,000 miles, the only ordinary communication being by steamer, the trip consuming 4 days and nights.

Even in the lofty mountains of Bolivia the steady drone of the airplane motor has recently been heard. An accompanying illustration shows a plane of French manufacture in a recent flight over La Paz, 12,000 feet above sea level. This was the second machine to fly over the city, the first pilot to do so having been an American, Captain Hudson. Flying at great altitudes, as in mountainous sections, is far from easy, as the air is rarefied and offers less support to the machine than the heavier air lower down, and therefore such feats as flying across the Andes between Argentina and Chile are fraught with difficulties unknown to the casual observer.

Recently a member of the Grace organization missed his steamer, which happened to be a Grace liner, at Callao. The ship's next port was Salaverry, a day's run and 252 miles away. The traveler climbed



Courtesy of The Grace Log.

A RECENT FLIGHT OVER LA PAZ, 1,200 FEET ABOVE SEA LEVEL.

This was the second machine to fly over that city.



Courtesy of The Grace Log.

GIRL AVIATORS OF AREQUIPA, PERU.

into a plane at Lima and was in Salaverry three hours later, waiting for the Grace steamer to arrive. Mail is now regularly transported between Lima and Trujillo by air, the only other means of transportation being by steamship.

Another example of how the airplane saved a business man much time and spared him great inconvenience is best told in his own words. Charles P. Lohse of the New York office of W. R. Grace & Co., tells the story as follows:

On a recent trip to Columbia my business in Barranquilla had taken more time than I had bargained for and my next stop was Bogota, which meant a 10 days' journey, at least. This trip is made by river steamer to La Dorada, then by train to Beltran, then by steamer to Girardot, and then the final train trip to Bogota. It is more than 600 miles, and it consumes between 10 and 13 days, and is frequently made under anything



COMFORTABLY APPOINTED INTERIOR OF A PASSENGER AIRPLANE IN THE SERVICE OF THE RIVER PLATE AVIATION COMPANY BETWEEN BUENOS AIRES AND MONTEVIDEO.

but pleasant conditions. The Magdalena River is shallow, the air full of insects, the heat intolerable, the steamers slow and possessed of a propensity for running aground. The trip is such a bugbear that the prospective traveler regards it with apprehension and postpones it as long as possible.

It is now possible to make this voyage in a far more pleasant fashion and in the short time of 36 hours. The Sociedad Colombo-Alemana de Transportes Aéreos was formed in December, 1919, for the purpose of transporting passengers, mail, gold, and other valuables by airplane. The route is between Barranquilla and Girardot and Neiva, and as the planes are equipped for landing solely on the water, the route follows the course of the Magdalena River between these points.

The ships used are Junker sea planes, the wings being made of "duraluminum." I decided to go to Bogota *via* the air route, and so on a beautiful morning our little ship took the air at 6.40, rising gracefully into the wind with the pilot and myself as the only human freight. After three hours our first stop, El Banco, was reached and we descended to take on fuel and mail, and incidentally breakfast, which I had missed that morning. After an hour's stay we continued to Puerto Berrio where we arrived at 1 o'clock to take on mail from Medellin and the interior, and also to lunch. An

hour later we left, taking with us a mechanic who happened to be in Puerto Berrio, and, climbing to 6,000 feet, maintained this altitude for the rest of the 3-hours' trip. Shortly after 4 o'clock we arrived over Girardot, descending in a graceful spiral. I stayed overnight there, leaving for Bogota *via* railroad the next morning and arrived at my destination that evening. The air trip to Girardot costs 250 pesos, the return trip 50 pesos less. Including all stops I made the trip in 36 hours, the air flight taking 9 hours. Had I traveled by the usual route it would have taken from 10 to 13 days.

The present regular service enables the mail on the incoming United Fruit steamers to go immediately to Bogota and other interior points, and mail from there is carried to reach the outgoing steamers. Recently a regular air mail service was established between Barranquilla and Cartagena.

Our progressive neighbors to the south are fully awake to the commercial advantages of the airplane, and it is certain that with the return of normal conditions in trade the use of the plane for commercial purposes in Latin America will constantly grow.

Clayton Sedgwick Cooper, in his latest book, "Foreign Trade Markets and Methods," says:

The great amount of scientific study * * * leads the exporter to hope for the arrival, at no far distant date, of a day when the air will contain both messages, men, and merchandise, passing from continent to continent, annihilating spacial and geographic distances and making the world of trade one.



HIGHWAYS ANCIENT AND MODERN IN THE NEW WORLD¹

IN connection with the universal interest in road construction apparent in all the countries of the Western Hemisphere, it is perhaps difficult to realize that men to-day are but following in the footsteps and developing the path-finding of the indigenous inhabitants and of the conquistadores. The physical features of a country determine in advance the trend of its main-traveled



A BRIDGE ON THE FAMOUS INCA HIGHWAY, PERU.

(Photograph believed to have been taken about 1885.)

roads, so that from the earliest times successive generations of inhabitants pursue essentially the same route from one given point to another, save as modern inventions make possible the elimination of obstacles too difficult for more primitive means to overcome. Could the shadowy procession of those who have traveled the way before us but pass before present-day eyes, what a thoroughfare of courage, perseverance, and progress would each highway appear to be!

The ancient inhabitants of Peru, the Incas, had two principal roads, says the historian Dr. Carlos Wiesse,² the most important of which

¹ By Miss Elsie Brown of the P. A. U. editorial staff.

² Dr. Carlos Wiesse: *Las civilizaciones del Antiguo Perú*, quoted in *La Prensa*, Lima.

wound through the Andes, while the other passed through the coastal plain from Tumbes to the desert of Atacama, the two being connected by secondary roads. Doctor Wiesse quotes an old Spanish chronicler's description of the Andine road:

A road was made, the proudest and most worthy to be seen in the world, and also the longest, because it started from Cuzco and extended to Quito, and moreover joined the road to Chile, which was like unto itself. I believe that in the memory of man no one has read of so great a work as this road, made through deep valleys and



A GLIMPSE OF THE ROYAL ROAD OF THE INCAS, PERU.

over lofty mountains, past snowy peaks, over waters, through the living rock, and beside furious rivers. Through all these regions went the smooth, well-paved road, notwithstanding great handicaps—through the opened forest, through the hollowed rocks, its walls close to the rivers, amongst precipitous snows; everywhere clean, well-swept, clear, and all along it storehouses of gold, temples of the sun, and the post-stations which there were on this road. Oh, what marvel can be told of Alexander, or of any of the mighty kings who have ruled the world, equal to the making of this road and the provisioning of it?

Such a chronicler should sound the paean and the romance of the highways of to-day, although the engineer was indeed given his meed of praise by the governor at the opening in May of the Duarte Highway, from Santo Domingo northwest across the island to Monte Cristi, a distance of 292 kilometers. The governor said in part:³

Along this way went Alonso Ojeda, or through the pass of Cotuí or of Constanza in 1495. * * * We also know that before leaving the island in 1496 to return to Spain after his second voyage, Columbus had given orders that a city should be built at the mouth of the Ozama, because Miguel Díaz had told him that this country was rich in gold, and very near here * * * were established the first mining camps.

We know that Ojeda and Pizarro and Cortés and all the men who visited Santo Domingo and left these waters for Mexico and Peru are called conquistadores; but I ask you to consider the conquistadores of the present. The ancient conquistadores climbed mountains, forded rivers, lived under arms, and feared nothing. Their successors of to-day are the engineers. These modern conquistadores pierce mountains and bridge rivers; they conquer countries by peaceful means and not by force of arms; they work day and night in fair and foul weather to achieve their object, and this road which you behold, the dream of this island since Ojeda passed this way the first time, has been realized by the engineers.

An eloquent address was made on the same occasion by Señor Juan Federico Sánchez, Governor of the Province of Santo Domingo. He spoke in part as follows:

* * * It is true that the civilization and the progress of a people in the present organization of society can be measured by its means of communication as well as by any other manifestation of progress representing the activities of labor and producing interchange.

To put into communication the different elements of a country is to make it at the same time productive; to make it productive is to enable it to be a consumer; to make it both a producer and a consumer is to give it sources for taxation, through which the State fosters collective development. * * *

Roads are the springs on which move all the manifestations of individual life, creating a relation of interdependence, a solidarity of interests, and a community of ideas and sentiments superior by its own nature to all the political systems ever imagined for producing the peace and harmony of society. * * *

The steam roller, the leveler, and the stone crusher, then, unlovely and monstrous as they appear, may indeed be hailed, as recently occurred in a small town, as the harbingers of civilization.

Mexico is one of the countries which are profoundly convinced of the truth of the ideas set forth by Señor Sánchez, for in this year's budget the sum of 30,000,000 gold pesos was appropriated for highway construction. This will mean 10,336 kilometers of new roads—a tremendous impulse to all phases of national life. Some of the roads are to join United States highways which extend to the Mexican border, and citizens of both countries are engaged in furthering the construction of these tangible means to benefits both material and intangible—the “solidarity of interests and the community of ideas and sentiments” to which Gov. Sánchez referred.

³ From *Listin Diario*, Santo Domingo, Dominican Republic.

But to return to the Incas and their roads: One of these ancient highways, from Pampas to Huancayo, is among the roads being rebuilt by the Peruvians of to-day, laboring under the highway law which requires of every able-bodied man a certain number of days'



Courtesy of The American Review of Reviews.

A RECENTLY CONSTRUCTED HIGHWAY IN THE DOMINICAN REPUBLIC.



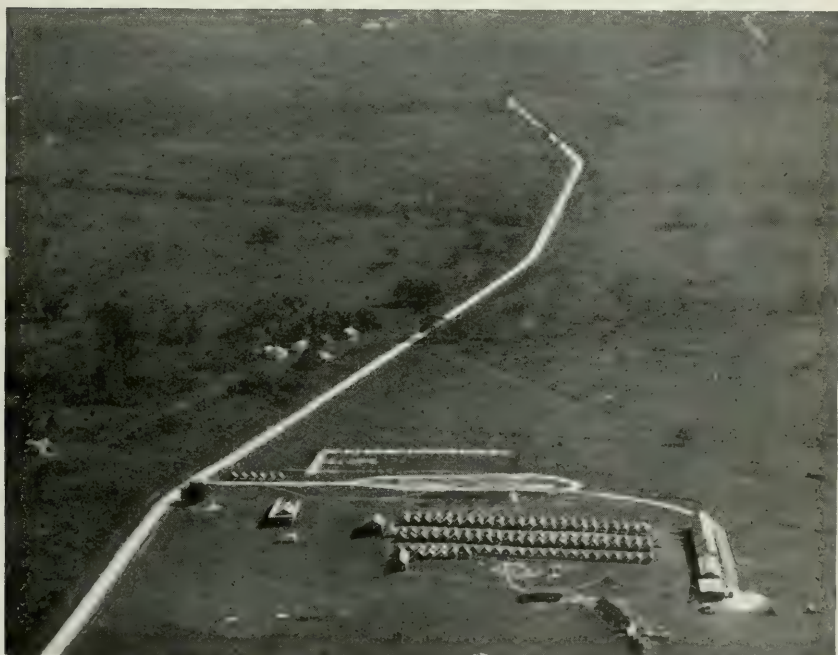
Courtesy of The American Review of Reviews.

A CONCRETE BRIDGE OVER THE NIGUA RIVER AT SAN CRISTOBAL, DOMINICAN REPUBLIC.

work each year. If as they toil they could see the first makers and travelers of the road, and the latter in turn could behold twentieth-century motor cars and trucks welding distant parts of the country into one by intercourse and commercial interchange, which would marvel the more at the other?



MODERN ROAD BUILDING IN PERU.



Official Photograph, U. S. M. C.

AN AIRPLANE VIEW OF A SECTION OF THE ROAD FROM SANTO DOMINGO TO SANTIAGO, DOMINICAN REPUBLIC.

LA PAZ: A PICTURESQUE MODERN CAPITAL

By GÓVER ZÁRATE M.

ONE of the most picturesque cities of the Republic of Bolivia' whose extraordinary location adds to its charm, is La Paz, the seat of Government and center of the country's commercial activity. Founded October 20, 1548, by the Spanish captain, don Alonso de Mendoza, at the command of don Pedro de la Gasca, La Paz, thanks to the perseverance and enterprise for which its inhabitants are noted, has attained first place among the cities of the country, assimilating for its own use elements of foreign as well as national progress.

To the traveler who for the first time approaches this Andine city the journey offers impressive scenes, for one must traverse the desolate, almost uninhabited extent of a seemingly boundless plateau fading into the distant horizon, the arid landscape broken only by the circular huts of the Aymaras, scattered at long intervals over the parched earth.

Fortunately, the convenience of railway travel saves the tedious trip of more than six days on post mules formerly made by visitors to La Paz. After leaving Oruro the line of the railroad encounters no obstacles; it is straight as a die, and over it flies the train at top speed until the station of El Alto is reached. Looking down from there into a cuplike depression one beholds far below La Paz, embowered in luxuriant green. Above the treetops appear some of the buildings, four or more stories in height, surmounted by cupolas or towers, while in the background loom the lofty summits of the Andes, perpetually crowned with snow, their rugged shapes losing themselves in the majesty of space. Proudest of all is the white, impregnable fortress of Illimani.

For the descent to the city there is a choice of two routes—the Bolivia Railway, or the Peruvian. The first obviates a change of train, but the second gives a more beautiful approach to the environs of the city and to the city itself. The site of La Paz, hilly and uneven as it is, and divided by the Choqueyapu River, has not given pause to human perseverance, which, in the pursuit of civilization, overcomes all difficulties and follows the path of change and progress.

The present population of La Paz is 150,000, the city limits having been extended to include the neighboring valleys of Miraflores,



Photograph by I. F. Scheeler.

GENERAL VIEW OF LA PAZ, BOLIVIA.

"Looking down one beholds La Paz far below, embowered in luxuriant green. In the background loom the lofty summits of the Andes, perpetually crowned with snow, their rugged shapes losing themselves in the majesty of space. Proudest of all is the white, impregnable fortress of Illimani."



THE LEGISLATIVE PALACE, LA PAZ.

Upper: The front of the edifice, facing the Plaza Murillo. Lower: One of the stairways in the capitol.



TWO OF THE NEWER BUILDINGS OF LA PAZ.

The Department of Government and Justice and, on the left, the Banco Mercantil.



THE MUNICIPAL THEATER OF THE BOLIVIAN CAPITAL.

This fine structure was completed in 1909.

Sopocachi, and San Jorge, an extent of more than 10 kilometers. The city streets are straight, wide, and well paved; that they are also hilly is an annoyance only to newcomers in the city, as after a short residence one grows accustomed to this characteristic.

The present modern aspect of La Paz dates from the year 1898 when, subsequent to the so-called Federal Revolution, the Government and all its departments were transferred thither. A visitor notes that the buildings in La Paz are of modern construction and that in the new Sopocachi section are to be found the luxurious villas of wealthy Bolivians and of foreigners who enjoy the quiet and retirement of this district. The Choqueyapu, which, as already said, crosses the city from one extreme to the other, presents no insurmountable obstacle to building, for many houses are perched above it on iron stilts. Around the Plaza Murillo are grouped the public administration buildings, such as the Government Palace, the Legislative Palace, and the Cathedral, an imposing structure which has been in course of erection for many years.

Like all American cities which were part of Spain's colonies, La Paz, first after Chuquisaca (now Sucre) to proclaim rebellion against peninsular domination, cherishes its pages of heroic history. On July 16, 1809, taking advantage of the fact that the royal troops had left their barracks to join the procession of the Virgin del Carmen, Pedro Domingo Murillo, acting as spokesman for the people, proclaimed their independence. For this he was later arrested and led to the gallows, but before he died he addressed the throng assembled in the square, saying: "The torch I have kindled can not be put out," and then proudly submitted to the executioner. He spoke indeed truly.

In this beautiful and historic city of La Paz are concentrated for the greater part, the general activities of Bolivia, commercial, legislative, and executive. By the easy means of communication the currents of immigration and commerce flow in, bringing the blood of modern progress to La Paz, the heart of the country.

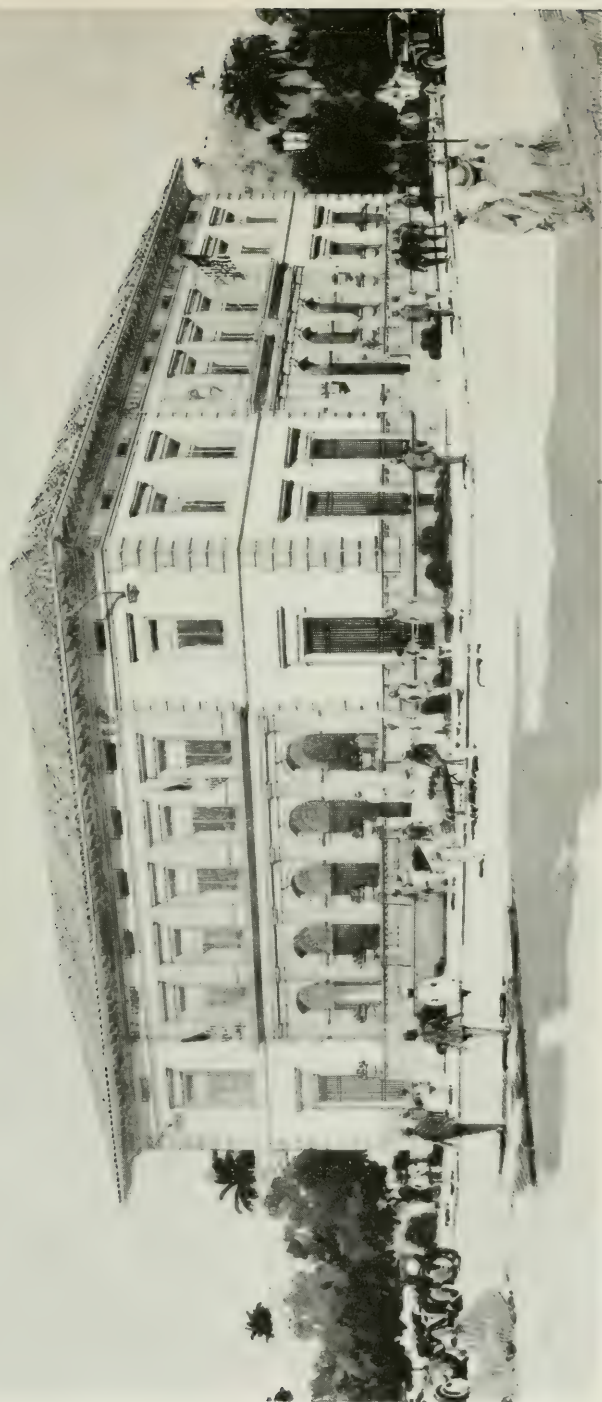


UNITED STATES IN COMING INTERNATIONAL CONFERENCES IN BRAZIL

THE 7th of September, as readers of the BULLETIN are well aware, marks the hundredth anniversary of Brazilian independence and the opening of the Exposition commemorating that important date in the history of one of the greatest of Pan American Republics, in the celebration of which the United States cordially joins. President Harding has named as the official commission to bear the greetings and good wishes of the United States to her sister Republic the following distinguished gentlemen: The Secretary of State, the Hon. Charles Evans Hughes; Maj. Gen. Robert Bullard, representing the Army; Rear Admiral Hilary P. Jones, representing the Navy; the Hon. Stephen G. Porter, chairman of the House Committee on Foreign Affairs; and Judge Edward R. Finch, of New York City. The members of the United States Commission appointed by the President to supervise the participation of this country in the exposition are as follows: Col. D. C. Collier, commissioner general; Mr. J. Butler Wright, deputy commissioner general; Mrs. Henrietta Livermore; Mr. John H. Kirby; Mr. L. A. Stevens; and Mr. Richard P. Momsen.

The Brazilian centenary of independence and its commemorative exposition make Rio de Janeiro an appropriate meeting place for many of the great international congresses which are assembling this year in Latin America. From the Pan American countries will go delegates to consider for the third time the vital subject of child welfare, and others who will review the cultural and commercial concerns of the Americas. In some of these congresses, such as those on history and geography, engineering, and cotton, there will be world-wide representation. In Buenos Aires, prior to the date for the opening of the Brazilian Exposition, there will be held the Conference on International Law.

The United States Government and many American institutions and associations are sending a goodly number of representatives to join in the deliberations of these learned societies. The BULLETIN OF THE PAN-AMERICAN UNION takes pleasure in publishing the following list of delegates, together with the name of the society or institution which each represents:



Courtesy of Dwight P. Robinson & Co., Inc.

UNITED STATES GOVERNMENT BUILDING, RIO DE JANEIRO, BRAZIL.

Architect's drawing of the official United States Government Building now being constructed at Rio de Janeiro for the Brazilian Centennial Exposition, which opens September 7. The building is of permanent construction and will serve as the American Embassy after the close of the Exposition. Frank L. Packard, of Columbus, Ohio, is the architect, and Dwight P. Robinson & Co. (Inc.), the constructors.

OFFICIAL DELEGATES TO THE TWENTIETH INTERNATIONAL CONGRESS OF AMERICANISTS.

(To be held in Rio de Janeiro from August 22 to 30, 1922.)

DR. GILBERT H. GROSVENOR—United States Government, National Geographic Society.

DR. ALES HRDLICKA—United States Government, Smithsonian Institution, American Anthropological Association.

DR. W. P. WILSON—United States Government, Commercial Museum of Philadelphia (Philadelphia Museums), American Philosophical Society, Academy of Natural Sciences of Philadelphia.

DR. MARSHALL H. SAVILLE—United States Government, Museum of the American Indian, American Museum of Natural History, Columbia University, Explorers Club, Museo Nacional de Guatemala.

DR. WALTER HOUGH—United States Government, Smithsonian Institution.

DR. H. J. SPINDEN—United States Government, Peabody Museum American Archæology (Harvard), The Maya Society.

DR. SYLVANUS MORLEY—United States Government, Carnegie Institution of Washington.

DR. MITCHELL CARROLL—United States Government, Archæological Institute of America.

DR. I. J. COX—United States Government, Ohio Archæological and Historical Society, Northwestern University.

DR. PETER GOLDSMITH—United States Government, American Association for International Conciliation.

DR. WM. L. BRYANT—United States Government, Museum of the Buffalo Society of Natural Sciences.

DR. HERMAN G. JAMES—United States Government, University of Texas.

DELEGATES TO THE THIRD PAN AMERICAN CONGRESS OF CHILD WELFARE.

(To be held in Rio de Janeiro from August 25 to September 5, 1922.)

MR. C. C. CARSTENS—Child Welfare League of America.

MRS. GILBERT H. GROSVENOR—Board of Children's Guardians of the District of Columbia.

MRS. CHARLES LYON CHANDLER—Children's Bureau of Philadelphia.

DR. PETER GOLDSMITH, of New York.

DR. N. ANDREW N. CLEVEN, of the University of Pittsburgh.

MRS. OLIVER RICKETSON, of Boston.

DELEGATES TO THE INTERNATIONAL HISTORICAL AND GEOGRAPHICAL CONGRESS.

(To be held in Rio de Janeiro beginning September 7, 1922.)

HON. EDWIN V. MORGAN, of Rio de Janeiro—Harvard University.

MR. JESSE KNIGHT, of Rio de Janeiro—Harvard University.

MR. LEON B. FREY, of Philadelphia—American Historical Association; University of Pennsylvania.

DR. I. J. COX—American Historical Association; Northwestern University, Evanston, Ill.

DR. HERMAN G. JAMES—American Historical Association; University of Texas.

DR. N. ANDREW N. CLEVEN—American Historical Association; University of Pittsburgh.

MR. JOHN B. STETSON, Jr., of Elkins Park, Pa.—American Historical Association.

MR. CHARLES LYON CHANDLER, of Philadelphia—American Historical Association.

DELEGATES TO THE INTERNATIONAL ENGINEERING CONGRESS.

(To be held in Rio de Janeiro from September 7 to 30, 1922.)

American Society of Civil Engineers.

MR. WALTER CHARNLEY,
MR. C. W. COMSTOCK,
MR. P. B. EASTERBROOKS,
MR. VERNE LEROY HAVENS,
MR. LEON C. HEILBRONNER,
MR. W. G. MCCONNELL,
MR. ARMANDO DE ARRUDA PEREIRA,

MR. GEORGE RIBEIRO,
MR. GEORGE SCHOBINGER,
MR. VICTOR DA SILVA FREIRE,
MR. T. P. STEVENSON,
MR. A. Y. SUNDSTROM,
MR. B. S. THAYER.

MR. CALVIN W. RICE, representing the American Society of Mechanical Engineers, John Fritz Medal Board of Award, Engineering Foundation, National Engineering Research Council, United Engineering Societies, The Federated American Engineering Societies, American Society of Civil Engineers, American Institute of Mining and Metallurgical Engineers, American Institute of Electrical Engineers, American Water Works Association, Institute of Radio Engineers, and Engineers' Club of Philadelphia.

PROF. EDWARD OTIS TEMPLE PIERS, director of Engineering Course, Mackenzie College, Sao Paulo, Brazil—Representing the Engineering Institute of Canada.

MR. C. H. CRAWFORD, Manager, Baldwin Locomotive Works, Philadelphia, Pa.—Representing the American Railway Engineering Association and the American Association of Engineers.

MR. R. C. CROCKER, locomotive, car, and marine superintendent, Leopoldina Railway (Rio de Janeiro, Brazil)—Representing the American Railway Engineering Association, 431 South Dearborn Street, Chicago, Ill.

DR. T. T. READ, Bureau of Mines, Department of the Interior, Washington, D. C. —Representing the American Institute of Mining and Metallurgical Engineers.

MR. WARREN E. EMLEY, Bureau of Standards, Department of Commerce, Washington, D. C.—Representing the American Society for Testing Materials.

OFFICIAL DELEGATES TO THE SECOND AMERICAN CONGRESS OF ECONOMIC EXPANSION AND COMMERCIAL EDUCATION.

(To be held in Rio de Janeiro from October 12 to 20, 1922.)

DR. ISAAH BOWMAN—United States Government, American Geographical Society of New York.

DR. EMORY R. JOHNSON—United States Government, University of Pennsylvania.

DR. L. C. MARSHALL—United States Government, University of Chicago.

DR. A. M. SOULE—United States Government, University of Georgia.

DR. B. YOUNGBLOOD—United States Government—Agricultural and Mechanical College, College Station, Tex.

DELEGATES TO THE INTERNATIONAL COTTON CONGRESS.

(To be held in Rio de Janeiro from October 15 to 18, 1922.)

DR. D. K. TRESSLER, Washington, D. C.

DR. J. C. KIRCHER, United States Department of Agriculture.

DR. CLIFFORD SHOEMAKER, United States Department of Agriculture.

In addition to the foregoing, the following delegates have been appointed to the Conference on International Law to be held in Buenos Aires, beginning August 24, 1922.

MR. HOLLIS R. BAILEY, Boston, Mass.
MR. EDWIN R. KEEDY, Philadelphia, Pa.
MR. BORRIS M. KOMAR, New York City.
MR. FRANCIS W. AYMAR, New York City.

MR. ARTHUR K. KUHN, New York City.
MR. HENRY C. NILES, York, Pa.
MR. W. J. GUEPIN, New York City.

THE NEW STATE BANK OF PERU

By OSCAR V. SALOMON,

Consul General of Peru, London, England.

REMARKABLE testimony to the resolve of the present Peruvian Government to compel the progress of the country by sound statesmanlike action is to be found in the law which establishes the new State bank—The Banco de Reserva del Peru. For this bank is the rock upon which a sure national progress may be built. It is signally calculated to provide all Peruvians with an incentive to enthusiasm and well-doing for the advancement of their homeland, while the Government merits respect for giving so brilliant a proof of the knowledge they possess of both national and international needs. Indeed, the foundation of the reserve bank may be regarded as a milestone in the sequence of historical events evolved in the progress of the Republic from the hour of its creation by San Martin, and worthily celebrates the centenary of that emancipating day. The influence of the new bank upon the country's development can not fail to be far-reaching, for such influence must not only be a steadying force but also a stimulus to that progress which is potential in Peru's boundless natural wealth.

The authorized capital of the bank—whose duration is 25 years, with power to prolong—is Lp. 2,000,000, divided into Lp. 1,000,000 of "A" shares of £10 each, and Lp. 1,000,000 of "R" shares of £10 each, the latter being for distribution among the public, and carry no voting power. The "A" shares are for allotment among all Peruvian banks and all foreign banks having an established branch in the country. Every new bank organized in the country, and every new foreign bank with a branch therein, shall be eligible as a shareholder of the reserve bank, subscribing for class "A" shares in an amount equal to the tenth part of the capital with which it starts business.

The share-holding banks are formed into three groups, according to the amount of their capital. The banks of each group elect two directors to represent them on the board of directors of the bank, one of whom must be a Peruvian. The six members of the board thus elected, together with three appointed by the Government—two at least of whom must be Peruvians— and one chosen by the fiscal agency which the Government may establish abroad, comprise the whole board of 10 members. Seven categories of persons are barred from

election to the board. The directors retire—two at the end of one year, two at the end of two years, and two at the end of three years. The three Government directors retire in similar order. The board's quorum is seven, and resolutions require a majority of six concurrent votes, two at least of the Government representatives being present.

The bank may receive current account deposits in gold, "cheques circulares," bank notes or any other lawful money, checks, drafts, and bills payable on presentation, and also in maturing collections, notes, and bills. Deposits in current account of share-holding banks may be accounted as part of the reserve required by article 185 of the commercial code. It may discount, with the indorsement of any share-holding bank, negotiable instruments arising out of actual commercial transactions, and also paper secured by commercial products of easy sale. The bank shall not, however, discount paper covering long-term or permanent investments, or that issued for the purpose of speculating, trading in, or holding investments. All negotiable paper must not have a maturity of more than 90 days. But paper issued for agricultural purposes may have a maturity of not more than 6 months.

No indorsement compels the bank to protest, and it has the right to return unpaid discounted documents two days after maturity, and demand payment.

The bank may discount acceptances and promissory notes against share-holding banks having a maturity of not more than three months. It may sell and purchase, at home and abroad, from banks and first-class importing and exporting firms, cables transfers, bills of exchange, and bankers' acceptances.

The bank shall receive the judicial and administrative deposits, and exercise the functions confided to the Caja de Depósitos y Consignaciones in accordance with the laws relating thereto, but is not obliged to render the special guarantees required by such laws.

When in the judgment of the board the bank's cash reserves justify such operations, the bank may purchase, discount, or advance against acceptances, commercial paper, or promissory notes fully secured by collateral.

The bank may accept deposits from the public without interest, act as paying agent of the Government, is authorized to deal in foreign gold coin and bullion at home and abroad, make loans thereon, exchange its own notes for gold, and contract for loans of gold, giving therefor acceptable security.

The bank may purchase from the share-holding banks and sell, with or without its indorsement, bills of exchange, and establish rates of discount for each class of transaction in order to facilitate commerce and industry. It may open accounts in foreign countries, appoint correspondents and establish agents, and buy and sell, with

or without its indorsement, negotiable instruments arising from actual commercial transactions, with not more than 90 days to run, collect bills of exchange through the same channels, and open banking accounts with such foreign correspondents and agents.

The bank shall also have power to act as clearing house for the share-holding banks.

The bank is prohibited from entering into exchange transactions, doing a general loan banking business, granting overdrafts in current account, performing acts and transactions not authorized by this law, and from acquiring by purchase, discount or otherwise, property or security of a nature different from that specified by this law.

Article 13 of the law enacts that it is the bank's exclusive privilege to issue bank notes, but only for the purpose of exchanging them at par for the "cheques circulares" in circulation at the date of the promulgation of this law; of providing for the operations of rediscount and advances to the share-holding banks; and for the purpose of mobilizing the deposits made in Peruvian coined gold pounds or natural gold in any other shape.

Article 14, however, enacts that, when the international financial situation becomes normal, the executive, on the request of the board of directors, shall authorize the latter permanently to redeem the bank notes in the manner provided by Article 13.

By Article 15 the law enacts that the bank shall maintain in its vaults, as guarantee for its notes, Peruvian gold pounds or gold bars in the proportion of 7 grams 323 milligrams of fine gold for each Peruvian pound, cash funds in dollars in New York and in pounds sterling in London—gold and credits which shall in no case be less than 50 per cent of the aggregate of the bank notes in circulation.

As an additional guarantee of these notes, the bank shall hold notes, drafts, bills of exchange, acceptances or promissory notes, but such promissory notes shall not exceed 10 per cent of the entire guarantee of the bank notes. The aggregate of the gold and of the funds in gold abroad, together with the bills discounted, shall not be less than the total amount of the notes in circulation.

In addition, and as an independent and special guarantee for the sight deposits, the bank shall hold in its vaults a reserve of gold and funds which shall never be less than 50 per cent of such deposits.

The Junta de Vigilancia de la emisión de Cheques Circulares, the Banco del Perú y Londres, the Banco Italiano, the Banco Popular, the Banco Alemán Transatlántico, the Banco Internacional del Perú, and the Caja de Ahorros are to deliver up, by this law, all their assets given as guarantee for the cheques circulares. These assets become the property of the reserve bank, which shall hold them for the guarantee and redemption of the cheques circulares in circulation, the above-mentioned banks being duly credited with the amounts thereof

delivered to the reserve bank. Upon this delivery the banks above named are relieved of all responsibility to the holders of cheques circulares, a responsibility absolutely assumed, and upon the same conditions, by the reserve bank. Upon the transfer to the reserve bank of the assets of the six banks, the bank shall issue an amount of bank notes equal to the total amount of the cheques circulares issued, and hold the same available for exchange for cheques circulares. The bank notes which the bank holds for the effects of such conversion are to be taken into account for the calculation of the amount of the gold and other assets which constitute the guarantee fund, as if they were in circulation.

The law, which is comprised in 25 articles and some 6,000 words is, in the prudence and safeguards displayed by its authors, very striking. All those whose interests are, or are likely to be affected by its provisions in the course of commercial transactions should consult the law in its entirety at the offices of the nearest Peruvian consul general.



THE NEW SECRETARY OF STATE OF CUBA

ON JUNE 17, 1922, Dr. Carlos Manuel de Céspedes, who had been since July 22, 1914, envoy extraordinary and minister plenipotentiary of Cuba in the United States, was appointed Secretary of State by President Zayas of Cuba. Doctor Céspedes left Washington shortly thereafter to take up the duties of his new post of responsibility in Habana, carrying with him the most cordial good wishes of his many friends in the United States.

That Doctor Céspedes is admirably fitted to deal with international affairs a brief sketch of his career will show. He is a son of the renowned Cuban patriot and President whose name he bears, one of the most beloved and heroic figures in the history of the struggle for independence, known as the *Libertador de esclavos y redentor de pueblos*. Upon this heritage of patriotic devotion Doctor Céspedes has superimposed an international education, received in the United States, France, and Germany and supplemented by travel in both the New and the Old Worlds. As a result of his early training, Doctor Céspedes has the advantage of being an excellent linguist, speaking fluently six languages—Spanish, English, French, Italian, Portuguese, and German.

When barely 21 years of age Doctor Céspedes was selected as his assistant by Mr. William Williams, associate counsel for the United States during the Behring Sea arbitration with Great Britain, the proceedings of which were conducted in Paris. Thus began Doctor Céspedes' active association with Americans, which has continued through the years with ever-increasing cordiality.

After severing his connection with the Associated Press in Paris, Doctor Céspedes returned to Cuba, where he took part in the war of 1895, receiving the distinguished rank of colonel. In the following days of reconstruction, Doctor Céspedes, as member for the Province of Oriente, bore a prominent part in the House of Representatives, being twice vice president of that body. In this position his experience, education, and ardent patriotism made his services of the greatest value.

In recognition of Doctor Céspedes' ability, President Gómez offered him the post of envoy extraordinary and minister plenipotentiary of Cuba in Italy, where he remained four years, establishing the relations between the two countries on the most cordial and friendly basis. As a member of the governing board of the International Institute of



Photograph by Harris & Ewing.

DR. CARLOS MANUEL DE CÉSPEDES.

Until recently Minister from Cuba in Washington, now Secretary of State of Cuba.

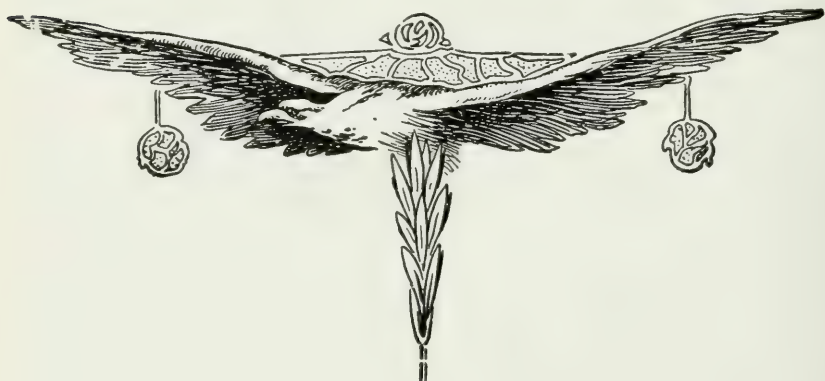
Agriculture, representing both Cuba and Salvador, he exerted his influence to secure the recording of world sugar statistics by the institute, figures which have since proved so valuable.

It was during his stay in Rome that Doctor Céspedes wrote the biography of Gen. Manuel de Quesada, commander-in-chief of the Cuban army of liberation, which is now being published in the *Annals of the Academy of History*.

In 1913 Doctor Céspedes was named minister to Argentina, Uruguay, and Paraguay. His stay in those countries was brief, however, for it was in July, 1914, as has been said, that he became Cuba's diplomatic representative in Washington. In the eight years since that time the ties uniting the United States and Cuba have grown ever stronger, being drawn even more closely by Cuba's entrance into the World War on the side of the Allies and the United States. Cuban sugar played no small part in war times, and it was Doctor Céspedes who presided over the Cuban commission in charge of selling the crops of 1918 and 1919.

During his residence in Washington Doctor Céspedes was a valued member of the governing board of the Pan American Union, while among other Pan American activities in which he was prominent were the Second Pan American Scientific Congress, held in Washington in 1915, and the Second Pan American Financial Congress in the same city in 1920, at both of which Doctor Céspedes was head of the Cuban delegation.

Both Doctor Céspedes and the charming Señora de Céspedes will be greatly missed in Washington, where they have a host of warm friends in diplomatic, official, and society circles.



SOME CONTEMPORARY ARGENTINE SCULPTURE¹

By CORNELIA BRACKENRIDGE TALBOT.

THAT the Argentinians are lovers of sculpture is evidenced by the quality and quantity of pieces exhibited in the streets and in the 73 parks of their magnificent city, Buenos Aires. The parks vary in size from "the chip of an old block" in a congested district, to an expanse covering acres, called El Paseo de la Recoleta.

The beautiful Avenida Alvear, extending from the heart of the city to one of the most fascinating race tracks in the world, is for sculpture-loving people a strand of pleasure pearls.

The setting of each statue or monument has been carefully considered.

An odd corner in a congested district is separated from the commercial surroundings by a huge palm, beneath which a charming little maid dispenses pleasure alike to the esthetic and the thirsty.

One of the recently established pieces of contemporaneous Argentine sculpture in Buenos Aires is a huge fountain by Lola Mora, an Argentine sculptress. It is set with the river La Plata as a great and glittering background, for the river there is 27 miles wide.

In the National Gallery of this city are examples of contemporaneous native work which run the gamut of Argentine responsiveness.

Compare the living merriment of the fascinating baby head by Juan Carlos Navarro with the heartrending pathos of the figure "My Sister" by Jose Fiorvanti.

I predict for Fiorvanti a place in the world's history of sculpture. His clarity of vision, his ability for expression, his untrammelled originality, make me wish that space here permitted of other reproductions of work by this youthful artist.

The contrasts in the same block of marble in the textures of hair, flesh, and background add interest to the splendid head of "Tehuelche" by Alberto Lagos.

Rogelio Irutha's "Solicitude" shows greater influence of the antique than is generally found in the work of South American artists.

To omit descriptions or reproductions of the various monuments given by other countries, or commemorating events in the world's history, is to leave unmentioned many points of real interest and great artistic merit in the sculpture of that magnificently progressive city, Buenos Aires.

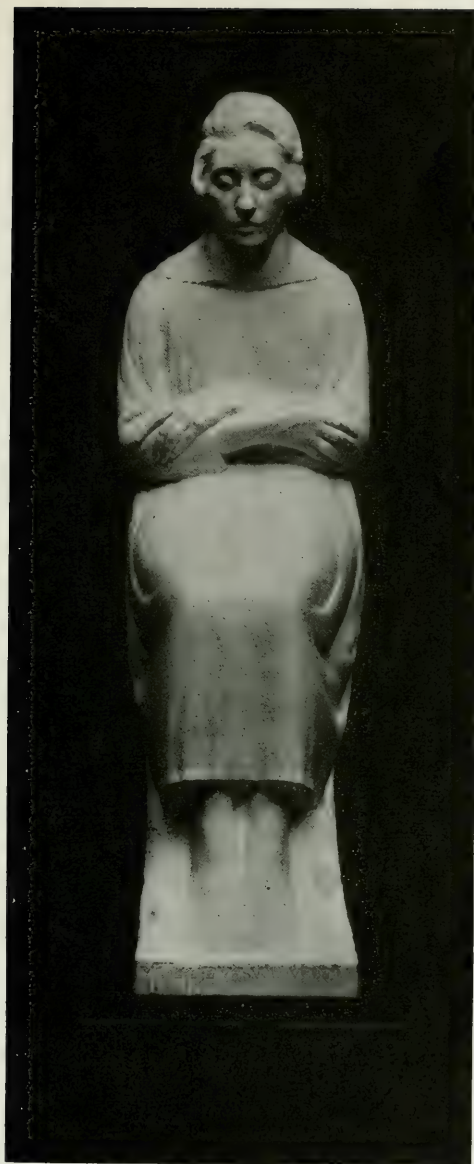
¹ From the American Magazine of Art, December, 1921.



Courtesy of The American Magazine of Art

A FOUNTAIN IN BUENOS AIRES.

The work of the Argentine sculptress, Lola Mora.



Courtesy of The American Magazine of Art.

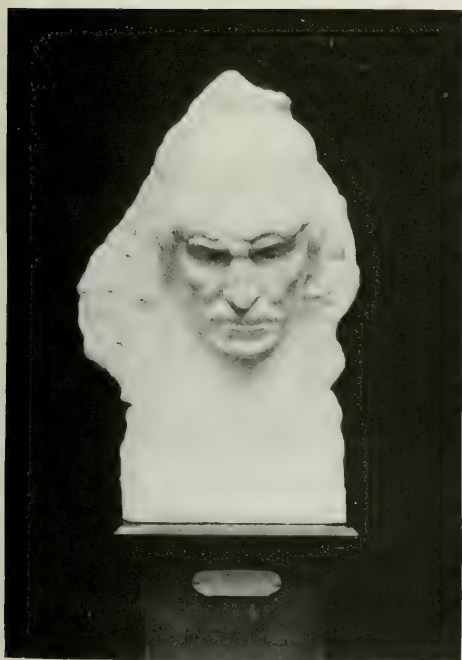
"MI HERMANA MARÍA" BY JOSÉ FIORVANTI.

In the National Gallery of Buenos Aires, Argentina.



Courtesy of *The American Magazine of Art*.

ANOTHER FOUNTAIN IN BUENOS AIRES.



Courtesy of The American Magazine of Art.

MODERN SCULPTURE IN THE NATIONAL GALLERY, BUENOS AIRES.

Upper: *Sonrisa*, by Juan C. Oliva Navarro. Lower left: *Tehuelche*, by Alberto Lagos. Lower right: *Solicitude*, by Rogelio Iturria.

A DISTINGUISHED CHILEAN STATESMAN AND DIPLOMAT

ON Saturday, April 22, 1922, the eve of his sixty-third birthday, the distinguished Chilean diplomat and statesman, Señor Eduardo Suárez Mujica, died in Santiago of heart disease. By his death Chile loses an eminent public man, a gifted diplomat, and a notable internationalist.

Señor Suárez Mujica was highly esteemed not only in his own country, where he had from early youth played a prominent rôle in public life, but in many foreign countries as well, with which his career as a diplomat had brought him into intimate connection.

After the completion of his preparatory work in the Instituto Nacional and the Colegio de los Sagrados Corazones in Santiago, the city of his birth, Señor Suárez Mujica entered the Law School of the University of Chile, from which he received the degree of Bachelor of Laws and Political Science. In 1879 he entered upon his first public office, obtaining through competitive examination a position as a minor official in the Ministry of Foreign Affairs. Thereafter his rise was rapid, and at the age of 23 Señor Suárez Mujica received the honor of being made Under Secretary of Foreign Affairs.

After rendering efficient service in this position for a number of years, he returned in 1888 to private life, devoting himself to his personal affairs until 1901, when he was made Intendente of the Province of Atacama. The favorable impression created by his conduct of that office led to his election to Congress as deputy for Copiapó and Vallenar, which districts he ably represented for the three successive periods from 1903 to 1909. At the close of his term, during some months of the presidency of Señor Pedro Montt, he held the portfolio of Justice and Public Instruction, and it was then that he founded the Library of Chilean Authors, an act honored by a vote of approval of the First Pan American Congress.

Señor Suárez Mujica was next appointed Minister of Chile in Mexico and Cuba, being transferred two years later to a similar post in the United States. It was in April, 1914, that Señor Suárez Mujica and his colleagues, Señor Domicio da Gama, Ambassador of Brazil, and Dr. Rómulo S. Náon, Minister of Argentina, proposed to the United States Government on behalf of their Governments mediation between the United States and Mexico. This offer having



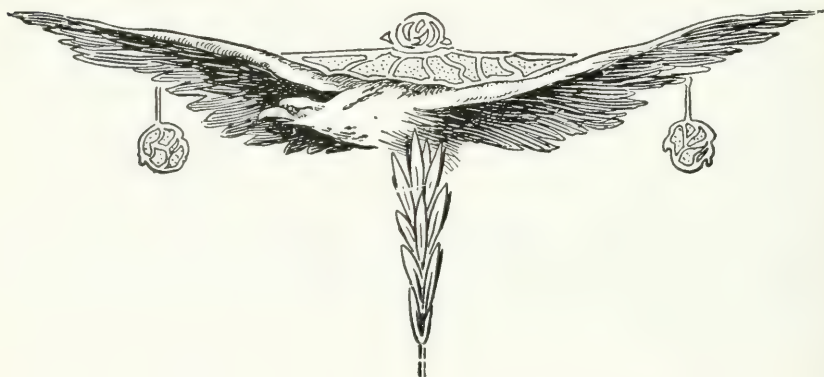
Photograph by Harris-Ewing.

THE LATE SEÑOR DON EDUARDO SUAREZ MUJICA.

been accepted by both countries, the three diplomats served as mediators at the famous meeting held shortly thereafter at Niagara Falls. That their good offices were highly esteemed by the United States was manifested by the resolution of gratitude passed by Congress and the gold medals presented to the mediators. When, later, in 1914, Chile and the United States decided to raise their mutual legations to the rank of embassies, the honor of being the first ambassador in Chilean diplomatic history fell to Señor Suárez Mujica.

Many other important positions of international significance were also filled by Señor Suárez Mujica. As president of the First Pan American Scientific Congress, which met in Santiago in 1908; chairman of the Senate Foreign Affairs Committee in 1909; special envoy to the Mexican celebration of the Grito de Dolores Centenary in 1910; president of the Second Pan American Scientific Congress in 1915; and arbitrator named by the United States to serve on the International Court created by special treaty to consider certain questions pending between the United States and Italy, Señor Suárez Mujica repeatedly proved his great ability and statesmanship. For his valuable offices in the court just mentioned the Congress of the United States in 1917 again gave him a vote of thanks and conferred upon him a gold medal, presented through the American Embassy in Santiago.

Señor Suárez Mujica's membership in the governing board of the Pan American Union during his residence in Washington was marked by an ardent and effective interest in its affairs, consistent with his broad international experience. His death deprives not only Chile but Pan America as a whole of a highly endowed statesman and friend.



THE UNITED STATES MARKET FOR CHILEAN FRUITS¹

By S. REID THOMPSON,

United States Vice Consul, Valparaiso, Chile.

CONSIDERABLE interest in the exportation of Chilean fruit to the United States has been manifested since the gratifying success obtained with the fruit shipment which arrived at New York in April, 1921. The Chilean Government is interested in the matter and gives special facilities in freights on the State railways and the means to insure prompt delivery to ships. All fruit intended for export is inspected by a Government agricultural expert to insure the proper standard of quality. The director of the Government Bureau of Agriculture, Francisco Rojas Huneeus, recently made a report on the market for Chilean fruit in the United States and the success achieved by the first trial shipment. The results obtained may be taken as a standard of what may be accomplished in this line when the fruit arrives in good condition.

The shipment in question, which left Valparaiso, March 29, 1921, and arrived in New York 21 days later, consisted of 1 crate of plums, 17 crates of apples, 101 crates of muskmelons (2 melons each), 390 boxes of grapes (10 kilograms each), 167 crates of peaches (24 to 28 peaches each), and 25 crates of tomatoes. The following figures show the estimated cost of placing each class of fruit in New York, including value of the fruit, boxes, packing, rail and ocean freight, etc., as compared with the average prices actually obtained in New York. Chilean paper currency is reduced to United States currency at the rate of 9.10 pesos to the dollar. On account of the haste with which the shipment had to be prepared, necessitating labor on holidays, the cost of several items was higher in this case than it would be when the industry is more highly organized.

	Cost in Chilean paper pesos.	Cost in United States currency at 9.10	Sale price in New York, United States currency.
Grapes (box of 10 kilograms).....	24.95	\$2.74	\$3.76
Peaches (crate of 24 to 28 peaches).....	21.95	2.41	5.70
Melons (crate of 2).....	30.95	3.40	5.35

¹ Report dated Apr. 21, 1922.

The apples and tomatoes were auctioned at \$1.80 and \$1 a box, respectively, as the market was already supplied with national products. A good profit was realized on the grapes, peaches, and melons, and undoubtedly good results could also be obtained with cherries, alligator pears, and berries.

As the months of greatest fruit production in Chile are just the opposite of those of the northern hemisphere, Chilean fruit can be placed in the United States during the months of January, February, March, and April, at which time the demand can not be filled by production in the United States.

In December, 1921, shipments of fruit were renewed and have continued up to the present with varying results. One shipment resulted in almost total loss, due, apparently, to careless packing. Great care must be taken in handling the fruit. It must be transported from farm to railway, railway to lighter at the port of Valparaiso, and from lighter to ship. During this entire transportation period care must be taken to keep the fruit well ventilated and not to allow it to be exposed to the sun. Facilities for refrigerated cargo to New York are offered by two steamship companies, but greater surety of the arrival of the fruit in good condition must be offered before the trade can expand very much. The ships in service are not well adapted to the fruit-carrying trade.

STATISTICAL INFORMATION ON THE FRUIT INDUSTRY IN CHILE.

The following statistics, which are the latest available, show the production of the principal varieties of Chilean fruits in 1920:

FRESH FRUIT.

Lemons.	Oranges.	Apples.	Grapes.	Alligator pears.
<i>Number.</i> 12,412,000	<i>Number.</i> 11,448,000	<i>Number.</i> 27,254,000	<i>Kilograms.</i> 6,397,000	<i>Number.</i> 1,518,000

DRIED FRUIT.

[Quantity in kilograms.]

Cherries.	Plums.	Peaches.	Figs.	Pears.	Raisins.	Quinces.
193,300	190,200	1,807,800	1,792,700	940,900	587,600	293,400

According to the official figures for the year 1919 there were in Chile the following fruit trees:

	Number of trees.
Olives.....	113,402
Peaches.....	1,157,571
Pears.....	251,536
Figs.....	113,524
Cherries.....	217,683
Plums.....	187,946
Oranges.....	226,376
Lemons.....	98,421
Apples.....	671,408

The following statistics show the acreage planted in vineyards and the production of wine in Chile during the years 1913-1920, inclusive:

	Vine- yards.	Wine produced.
	<i>Acres.</i>	<i>Gallons.</i>
1913.....	151,954	44,487,233
1914.....	162,899	55,450,651
1915.....	175,998	61,548,973
1916.....	141,687	30,255,493
1917.....	157,786	46,476,116
1918.....	220,582	41,092,850
1919.....	164,865	32,891,973
1920.....	162,802	31,249,469

EXPORT AND IMPORT TRADE.

Exports of fresh fruit have formerly been confined to neighboring countries, especially Argentina and Peru. Large shipments of dried pitted peaches are made to Argentina, which took 381,411 kilograms in 1920. In the same year 26,476 kilograms of this product were shipped to the United States. The following figures show the quantities and values in United States currency of fresh and dried fruits exported from Chile to various countries in 1919 and 1920:

FRESH FRUIT.

Destination.	1919		1920	
	Quantity.	Value.	Quantity.	Value.
	<i>Kilograms.</i>		<i>Kilograms.</i>	
Argentina.....	156,059	\$16,478	300,972	\$66,245
Bolivia.....	18	7	18	7
Peru.....	4,160	350	13,715	2,255
Ecuador.....			9,000	438
Total.....	160,237	16,835	323,705	68,945

DRIED FRUIT.

Destination.	1919		1920	
	Quantity.	Value.	Quantity.	Value.
	<i>Kilograms.</i>		<i>Kilograms.</i>	
Argentina.....	240,834	\$94,347	47,336	\$13,097
Bolivia.....	45,516	5,049	39,787	7,030
United States.....	31,440	15,301	24,465	8,242
Peru.....	36,586	7,971	66,330	23,215
Uruguay.....	29,105	10,597	6,655	2,440
All others.....	10,609	1,763	3,819	1,134
Total.....	394,090	135,028	188,392	55,158

RAISINS.

Destination.	1919		1920	
	Quantity.	Value.	Quantity.	Value.
	<i>Kilograms.</i>		<i>Kilograms.</i>	
Argentina.....	24,965	\$6,070	7,544	\$2,234
Bolivia.....	63,253	15,088	48,637	14,035
Ecuador.....	61,989	14,430	33,131	8,573
United States.....	16,644	3,948	649,000	172,794
Peru.....	120,157	27,988	48,159	12,794
All others.....	72,052	17,561	1,591	1,208
Total.....	359,060	85,085	788,062	211,638

The great increase in the exportation of raisins to the United States in 1920 is worthy of note.

During the year 1921, 32,051 boxes of fresh fruit were declared at the consulate general for export to the United States, together with 43 cases of canned fruit and 161,168 pounds of dried cherries. During the first three months of 1922 the following exports of fruit to the United States were declared: 225,070 pounds of dried cherries, 301 cases of canned fruit, 1,672 cases of dried fruit, and 21,065 boxes of fresh fruit.

Although Chile produces an abundant supply of fruit, there is some importation, chiefly of fancy grades of dried and canned fruit. Some experimental importations of Florida grapefruit have been made, resulting in a ready sale of the fruit. Small importations of fresh fruit are made from Argentina. In 1920, 87,743 kilograms of fresh fruit, 48,380 kilograms of dried fruit, 28,697 kilograms of raisins, and 31,659 kilograms of canned fruit were imported into Chile. The present high import duties on fruit and the high exchange rate for the American dollar are factors that have reduced importation to a minimum.

While the present exchange rate operates against the purchase of goods in the United States, it is very favorable for the purchase of produce in Chile. The dollar is at present worth approximately 9 Chilean paper pesos, as compared with the normal rate of about 5 pesos. There are many, however, that believe another year will see Chilean exchange at or near the normal rate.





Courtesy of *The Republic of Ecuador*, New York.

THE MODERN MUNICIPAL LIBRARY AND MUSEUM, GUAYAQUIL, ECUADOR.



Photograph by C. B. Waite.

PLAYGROUND PRESENTED BY THE AMERICAN COLONY AS A CENTENNIAL GIFT TO THE CITY OF MEXICO.

This constitutes the introduction into Mexico of a popular American institution. Since the formal opening of the playground in September, 1921, about 1,000 children use it daily. *El Heraldo*, one of the leading daily papers of the Mexican capital, has said that nothing so useful has ever been done for the children of that city as the establishment of this playground.

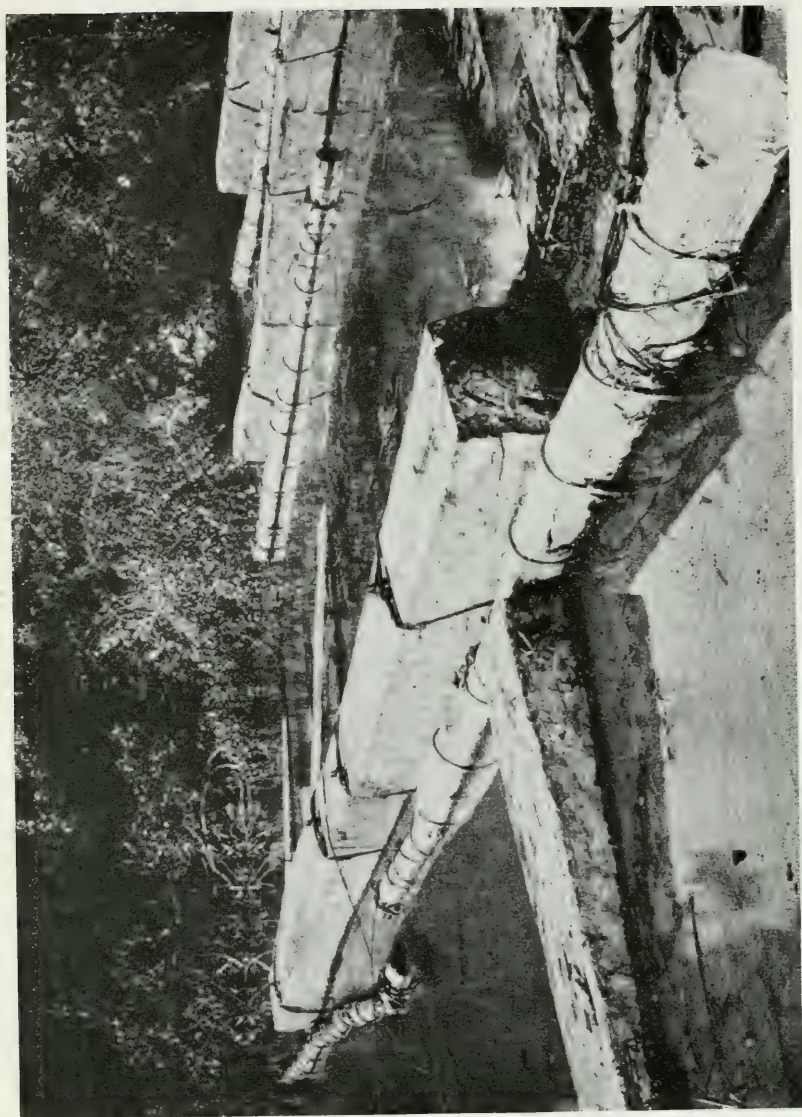


Courtesy of the Standard Oil Bulletin.

PHASES OF THE COTTON INDUSTRY OF MEXICO

Upper: Pile of cotton seed at an oil mill at Mexicali.

Lower: Cotton freighters destined for the United States waiting at the international boundary for clearance papers.



Courtesy of *Frau Mocho*, Buenos Aires.

A NEW METHOD OF RAFTING LOGS.

The invention of an Argentine naval engineer, Señor Don Francisco Alba. This raft, which was constructed under the direction of the inventor, in the waters of the Alto Paraná, is ready for floating to Buenos Aires, a distance of more than 1,000 miles.

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

MEAT TO GERMANY.—The Ministry of Foreign Relations has received a copy of the proposed convention with a stock company acting for a German syndicate whereby the Argentine Government promises to furnish annually at least 50,000 head of cattle, 60,000 tons of refrigerated meats, and all thereto belonging, f. o. b. port of Buenos Aires, the freight and insurance to be paid by the German syndicate. The price of the beef will be fixed in gold pesos, but will be paid in merchandise ordered by the Argentine Government. When the price of the meat is agreed upon, the shipment will be made and the merchandise will be valued at the current prices of the day on which they are delivered. In the first shipment the Argentine Government will guarantee gold pesos for paper marks at the rate of exchange quoted by the Banco Nacional de Argentina on the day when the prices are fixed. The Argentine Government will concede with each order of the German Government a credit of four months. This convention, if accepted, is to last two years, with an extension of two years if desirable, and goes into effect two weeks after its acceptance by the Argentine Government.

EMBARCACIÓN-YACUIBA RAILROAD.—Last December the work of felling trees was commenced on this line, which runs through rich woodland and agricultural regions yet to be developed to the town of Yacuiba on the Bolivian frontier. By June 14 rails had been laid to a distance of 26 kilometers from Embarcación.

PORK RAISERS' SOCIETY.—The Association of Pork Raisers was recently formed in the building of the Sociedad Rural Argentina. It proposes to increase hog raising in the country, create a bureau of information, and facilitate trade, as well as introduce modern methods in the care of pigs.

ROADS CONGRESS.—The First Good Roads Congress was held in Buenos Aires over the national holiday, closing on May 27. Among the important recommendations passed were those favoring the creation of an office of road mapping, which should also cover rural statistics, this office to be a branch of the Bureau of Roads and Bridges, under which the plans for the national system of roads should be made and the provinces invited to lay out their local road systems to connect with the national highway system; and the opening of a laboratory to test road-surfacing material, to build roads

in various provinces and territories, and to determine the kinds of roads suitable for various parts of the country.

On May 25, the one hundred and twelfth anniversary of Argentine independence, the First Good Roads Congress furnished a parade of early types of wheeled vehicles. The procession was led by an automobile bearing the emblem of the Argentine Touring Club and followed by all sorts of quaint vehicles which brought memories of colonial days. Ox carts, diligences, a sedan chair, low carts, and many varieties of strange vehicles for special uses or relics of some past historical period were seen. The second part of the procession consisted of automobiles.

BRAZIL.

PRODUCTION IN MINAS GERAES.—The Secretary of Agriculture, according to recently completed state statistics, announces that in Minas Geraes there are 6,150 factories devoted to various products and industries in the following numbers: Textile, 61; tobacco, 94; butter, 793; cheese, 425; lard and bacon, 18; breweries, 49; meat, 37; flour, 101; food products, 64; china, 45; tanning, 100; sugar refineries, 1,000; saw mills, 225; wineries, 157; iron and other metal plants, 131; saddleries, 111; matches, 37; soap, 37; paint, 15; chemical products, 8; other manufactures, 2,642.

THE BRAZILIAN FILM.—A man who has had a great deal of experience in the moving-picture world is the founder and organizer of a new company, in Rio de Janeiro, which is to be known as the "Brazilian Film," a suitable name, as one of the principal aims of the company is to give publicity to Brazilian activities. The company is now prepared for every kind of work, and intends to take moving pictures of all classes, using mostly Brazilian talent and Brazilian subjects. One of the great advantages of the company is the beautiful scenery and wonderful light conditions which Brazil presents.

PACKET PRIVILEGES. Through a circular issued to the inspectors of customhouses and collection agencies of the Republic, the Minister of War has stated that packet privileges have been granted to the steamers belonging to the firm of S. O. Stray & Co., running between the ports of Brazil and the United States.

THE VALORIZATION OF COFFEE.—In order to carry into effect the operation of the valorization of coffee, the Government has purchased a large quantity of bags of this product, which are deposited in Rio de Janeiro, Santos, Victoria, and, in smaller quantities, in foreign countries. It has been decided to appoint a committee of delegates indicated by the Brazilian Government and by the bankers who undertook the loan of 9,000,000 pounds sterling, these delegates to be in charge of the work of guiding and superintending the business connected with the said operation, and of employing appropriate measures for the defense of Brazilian coffee.

The Government has selected for its delegate on the committee Senhor Custodio José Coelho de Almeida, director of the exchange division of the Banco do Brasil, while Messrs. N. M. Rothschild & Sons, Baring Brothers & Co. (Ltd.), J. Henry Schroeder & Co., and the Brazilian Warrant Co. have indicated, respectively, Mr. Lionel Rothschild, Lord Revelstoke, Baron Shroeder, and Mr. Edward Green. The delegate of the Brazilian Treasury in London will represent the committee for the time being.

CHILE.

FOREIGN TRADE.—In his message read before Congress on June 1, the President stated that the foreign trade of Chile for 1921 was 825,-055,643 gold pesos of 18d. Of this sum, 381,302,506 pesos corresponded to imports and 443,753,137 pesos to exports. The former showed a decrease of 73,776,428 pesos and the latter of 342,768,168 pesos from the figures for 1920.

FRUIT COMMISSION.—As a result of the great interest in fruit culture now manifest in the Republic the Government has named a commission to spend three months in the United States studying the methods employed in the fruit industry which might be applicable for use in Chile. The members are: Señor Francisco Rojas Huneeus, Director of Agricultural Service; Señor Tiburcio Bisquert, professor of arboriculture in the Agricultural Institute; and Señor Vicente Valdivia, director of the Oenological Institute.

COLOMBIA.

NATIONAL EXPOSITION.—A large national industrial and agricultural exposition is to be held in Medellín, the capital of the Department of Antioquia, in the first part of 1923 under the auspices of the Society for Public Improvements, the Association of Agriculturists, and the Hospital of San Vicente de Paúl.

EXEMPTION FROM OIL TAXES.—Resolution No. 23 of May 22, issued by the Ministry of the Treasury, notifies the municipal and departmental authorities that in accordance with article 35 of Law 120 of 1919, petroleum and other products of the hydrocarbon deposits are exempt from all kinds of municipal and departmental tax, whether direct or indirect. This enables producers to ship their oil and related products to any part of the country for sale without municipal or departmental taxes.

NEW ELECTRIC PLANT.—Successful tests have been made of the new electric power plant in Bogotá, set up on the Neusa River to amplify the electric light and power service of Bogotá, and to provide for the towns of Nemocón, Chía and Cajica. The new plant is advantageously located on the river where the falls also supply sufficient power for running irrigation pumps.

RAILROADS.—Information from Colombia states that work has been resumed on the Ferrocarril del Norte in the direction of Tunja and Chiquinquirá, a monthly sum for the work appropriated, and the employment of 500 workmen authorized to lay the track and complete other work.

The recent railroad building in the country totals 92 kilometers, distributed among the following lines: Tolima-Huila-Caqueta; Ambalema-Ibagué; Pacífico; Caldas; and the Cartago branch.

CARTAGENA WATER WORKS.—The Municipal Council of Cartagena has signed a contract with an American engineer to survey the environs of the city to find a convenient place near by for the location of a reservoir large enough to supply the city with 4,000,000 gallons of water daily.

CUBA.

FAIR IN SANTIAGO DE CUBA.—A fair will be held in Santiago de Cuba under the auspices of the Asociación de la Prensa de Oriente for the purpose of exhibiting products of national and foreign industry and commerce. This fair will be open from October 10 to 20, 1922.

VACCINE FOR CATTLE.—In order to prevent certain diseases from spreading among cattle, the Secretary of Agriculture has issued orders to reopen the laboratory of epizootic diseases, connected with the veterinary section, for the purpose of preparing and distributing preventive serums gratuitously among the agriculturists and cattle raisers in the Republic.

ROADS.—The roads constructed in the island total a length of 2,375 kilometers, not including the 75 kilometers of roads in the Isle of Pines. According to the report of the United States acting commercial attaché in Habana the Government will, when its resources permit, commence the construction of granite block pavement to support the heavy traffic.

DOMINICAN REPUBLIC.

WATER SUPPLY.—The commune of Barahona will expend the sum of \$5,000, the price of a piece of public land sold to the Barahona Co., in the construction of a water system.

SUGAR CROP.—The Santa Fe sugar central at San Pedro de Macorís finished this season's grinding early in May, producing approximately 115,000 sacks of sugar of 320 lbs. each.

BLOODED SIRE.—The agricultural experiment station at Haina has acquired a thoroughbred American saddle horse for breeding purposes. His services are offered free of charge.

PROPOSED ROAD.—The citizens of Puerto Plata are working eagerly for the construction of a road from that city to Santiago, to join the Duarte Highway recently opened. The women have formed a com-

mittee to collect small amounts of money monthly, and successfully held an entertainment which brought in more than \$1,000.

PUBLIC WORKS.—See page 294.

ECUADOR.

CACAO.—The cacao received in Guayaquil in the month of May of the past five years is as follows: 1918, 119,450 metric quintals; 1919, 76,445 quintals; 1920, 107,378 quintals; 1921, 94,666 quintals; 1922, 122,568 metric quintals.

The shipments for the month of May during the past five years are: 1918, 2,837,098 kilos; 1919, 3,301,822 kilos; 1920, 5,954,431 kilos; 1921, 5,001,823 kilos; 1922, 5,702,247 kilos.

MAY EXPORTS, GUAYAQUIL.—The total exports for the month of May through the port of Guayaquil amounted to 107,878 bales, weighing 7,567,141 kilos. The articles were: Lizard oil, starch, rice, cacao, coffee, wooden canoes, cut sugar cane, cocoa shells, mangrove shells, chocolate, tinctorial reeds (*condurango*), cowhides, fresh fruits (oranges, apples, and pineapples), unspecified fruits, vegetables, printed books, butter, mocora palm fiber, toquilla grass, potatoes, bananas, cheese, cotton seed, Panama hats, shoe soles, shelled tagua nuts, coco matting, mineral earth, nationalized merchandise.

GUATEMALA.

ELECTRIC STREET RAILWAY.—The Guatemalteco publishes notice of the approval of a contract with a \$2,000,000 company to operate an electric street railway of not less than 9 miles in San José. The company may extend its lines beyond the city limits to the Departments of Sacatepéquez and Chimaltenango. The company engages to build a regulation gauge steel rail line and to have the city belt line constructed and in service within 10 months after the approval of the plans by the Minister of Promotion. The Sacatepéquez and Chimaltenango extensions are to be ready within 2 years. The overhead trolley system is prohibited.

FLOUR MILLS.—The Ministry of Agriculture, in order to encourage the production of flour, has acquired two "Wolf" mills with a daily capacity of 10 quintals of flour. The ministry is to rent these mills to nationals and it is hoped in this way to avoid importing flour, and to give work to a considerable number of persons.

DUTY-FREE CORN.—The import tax on corn was removed in June for the remainder of the year.

HAITI.

TELEPHONES.—Automatic telephone service has been installed in Port-au-Prince.

ROAD SURVEYS.—Having finished surveying the route for the road from Port-au-Prince to Jacmel, the engineers left for Las Cahobas to survey the road from that town to Belladère.

PUBLIC WORKS.—The town of Miragoâne has recently paved some of its streets, laid new sidewalks, and put in a fountain, assuring a constant water supply.

MEXICO.

OIL PRODUCTION.—The Department of Industry, Commerce, and Labor has issued figures showing that the oil produced in the first quarter of 1922 by Mexican wells amounted to 56,173,346.08 barrels, of which the Pánuco fields produced 11,114,819.98 barrels, Tuxpán fields, 45,055,792.27 barrels, and the Isthmus of Tehuántepec and Tabasco, 2,733.83 barrels.

FORD AUTOMOBILE FACTORY.—The Mexican representatives of the Ford Motor Co. have been conducting official and business negotiations for operating a Ford factory for assembling cars in Saltillo, Coahuila. The governor of that State is said to have offered a free factory site and exemption from taxes for 15 years to the Ford Co.

ENERGY AND SPEED AMPLIFIER.—Señor Don Andrés C. Contreras, of Querétaro, it is reported, has lately invented machinery for indefinitely multiplying power and speed. The inventions are named "Fuerza" (Force) and "Rayo Andrés" (Andrés Ray). The "Fuerza" machine gives a triple increase of the original force, and acts on the principle by which the second invention, "Rayo Andrés," increases indefinitely and continuously the original energy. Experiments made in Querétaro have shown such satisfactory results that the Department of Promotion has requested information concerning these inventions.

NICARAGUA.

TIMBER-CUTTING CONTRACT.—The Government has granted a contract whereby the concessionary is to have the right to cut timber in uncultivated State lands in the Departments of Chontales and Bluefields. The rights run for 5 years. If the concessionary cuts timber outside of the prescribed limits he is to pay to the Government 1 cordoba for each 1,000 feet of timber cut, in addition to the other taxes on exported wood in accordance with the forestry law and customs regulations. The concessionary is permitted to open roads, bridges, storehouses and operate vessels. He will pay a guarantee of 10,000 cordobas.

ELECTRIC LIGHT COMPANY.—The city of El Ocotal is to have an electric plant for house and street lighting. The installations in private dwellings will be made free of charge excluding globes, lamps, or other equipment aside from the wiring and fixtures.

LEÓN-PONELOYA ROAD.—This road is being improved and the route shortened. When the road is completed it will probably be possible to make the trip by automobile in 35 minutes. An excellent quality of stone for surfacing was found near the road.

PANAMA.

ROAD REPAIRS.—The repairs needed on the Calidonia Road were made by the Rotarians of Panama, who themselves went to work on the road. This public-spirited community service met with great response from the other citizens, some of whom offered material and others transportation, while the mayor furnished the tools. The rector of the National College offered the cooperation of the class of 1923 in the work.

FORTNIGHTLY FRUIT STEAMERS.—The *Calamares* of the United Fruit Co. sailed from Colon, July 2, on her first trip of the fortnightly service between Colon, Habana, and New York.

PARAGUAY.

COTTON CROP.—The cotton crop in Paraguay this year, says the Review of the River Plate, is estimated at 1,000,000 kilos. The seed imported from the United States is producing a yield of nearly 2,000 kilos of cotton per hectare, against about 1,300 kilos from the native seed.

PERU.

STEEL CONSTRUCTION FOR OROYA SMELTER.—The West Coast Leader says in its issue of May 10:

The American Bridge Co. on April 22 paid off the last man who had put the last swab of red paint on the 15,000 tons of structural steel brought from their manufacturing plants in the States through the Panama Canal to Callao, thence up the highest standard gauge railway in the world over an elevation of 15,665 feet, down to Oroya on the eastern side, at an elevation of 12,178 feet, for the construction of the new \$10,000,000 smelter of the Cerro de Pasco Copper Corporation. * * * During the progress of the work 140 expert structural steel workers were brought from the States to Oroya, the maximum number on the pay roll at any one time being 90. * * * Over the entire period 1,000 native workmen were employed, the maximum on the pay roll at any one time being 200. Many of the natives displayed remarkable adaptability in learning the somewhat difficult trade of the steel worker, and toward the close of the work, gangs under native bosses were working practically shoulder to shoulder with the American gangs. * * *

The Bridge company brought to Peru about 240 tons of machinery and construction equipment. * * * This was recently shipped back to the States.

ROAD CONSTRUCTION.—The chief of the commission in charge of road construction in the province of Huancayo reports that during the first half of this year 3,000 men were working on the roads under the road conscription law; that 58 kilometers of roads were repaired and constructed and 10 bridges built—certainly an excellent record.

Another road is under construction from Pampas, in the province of Tayacaja, to Huancayo, following the track of the old Inca road. This, too, says *El Tiempo*, of Lima, is proving the usefulness of the road conscription law, which requires from Peruvians and foreigners alike six days' work per year on the roads from men between 18 and 21 years of age, 12 days from those between 21 and 50, and 6 days from those between 50 and 60, or the equivalent in money.

SALVADOR.

BRIDGE.—The first locomotive crossed the iron railroad bridge over the Lempa River on May 15.

COFFEE YIELD.—In the Department of Santa Ana a manzana of land (1.72 acres) without cultivation yields about 35 quintals of fresh coffee berries. Proper weeding, pruning, and fertilizing will bring this yield on good land up to 75 quintals, and on the best land with the most approved methods of cultivation the yield is 100 quintals of fresh coffee berries per manzana. There are certain strips of land which yield as high as 200 quintals of freshly gathered coffee per manzana.

URUGUAY.

IMPORTANT COMMISSIONS.—The Minister of Industries has created two commissions to foster and promote agricultural interest. The first, the National Commission for the Defense of Production, is composed of members representing the agricultural societies, banks, the chamber of commerce and the Government, while the second, made up of representatives of the Government and the organizations interested, is to study the formation of a plan for the sale of Uruguayan fruit.

EXHIBITION OF FAT CATTLE.—The Rural Association show in May offered a novelty in that of the 34 lots of 15 head each of fat cattle, which were on exhibition, only 4 were Herefords, the rest being Shorthorns. Usually the former have been greatly in the majority. The quality of the stock shown was considered to be superior to that in any previous exhibition.

EXTINCTION OF THE TICK.—The commission in charge of carrying out the regulations for the campaign against the cattle tick has approved new plans for official cattle dips.

INTERNATIONAL BRIDGE.—In July the cornerstone was laid for the international railway bridge over the Yaguarón River between Uruguay and Brazil. The railroad which it is planned to construct will unite the two countries even more closely in the bonds of friendship and commercial intercourse.

VENEZUELA.

RICH OIL FIELDS OF ZULIA.—During the first five months of 1922, 205 steamers sailed from Zulua carrying cargoes of oil intended exclusively for exportation. In January there were 45 sailings; in February, 44; in March, 43; in April, 34; and in May, 39. The oil exported on those ships amounted to 103,000 tons, or 618,000 barrels. The average monthly sailing of oil ships in 1921 was 29, while the average for 1922 has been 41 steamers a month, which shows the increase in oil tonnage to be expected by the end of the year.

ECONOMIC AND FINANCIAL AFFAIRS

CHILE.

NATIONAL DEBT.—The foreign debt, which on December 31, 1920, amounted to £28,350,732, was during 1921 decreased £1,107,600 by amortization and increased through new loans \$15,682,678, without considering the railway loan which affects only the subsidiary responsibility of the State.

The internal gold debt was, on December 31, 1921, reduced to 4,862,000 pesos, and taking into consideration the 150,000,000 pesos of paper money, amounts to 154,862,000 pesos.

The internal debt in notes, which on December 31, 1920 amounted to 95,149,690 pesos, decreased through amortization during 1921 by 10,212,818.25 pesos, and increased through the issue of Treasury bonds by 124,602,000 pesos and through new redemptions of *censo*s by 506,934.04 pesos, the balance on December 31, 1921, being 210,045,806.21 pesos.

The gold guaranties of the State, which showed a balance on December 31, 1920, of 92,520,587.93 pesos, decreased 4,389,999.98 pesos by amortization and increased \$28,317,321.64 by the loans contracted for the State Railways.

State guaranties in notes for public works and municipal loans amounted on December 31, 1921, to 24,159,500 pesos.

On the same date conversion funds amounted to a total of 114,721,780.20 pesos in national gold, deposited as follows: Bank of England, 21,502,780.66 pesos; Casa de Moneda, 93,218,999.54 pesos. (*President's Message, June 1, 1922.*)

COSTA RICA.

REVENUE AND EXPENDITURE.—According to the President's message, read before Congress May 1, 1922, the revenues for 1921 amounted to 17,880,471 colones, of which 7,130,298 colones were collected by the customs. The expenditures for the same year included 4,489,162 colones for the national debt (interest and commissions). Amortization of the French loan amounted to 565,000 francs, and of the British loan to 36,000 pounds sterling. Exports amounted to \$11,886,953.02 American currency, and imports to \$9,180,098 American currency.

UNIFICATION OF PAPER CURRENCY.—See page 298.

CUBA.

BUDGET.—Congress has passed a law authorizing the collection of revenue calculated at \$55,638,800 during the fiscal year of 1922-23. This sum is divided as follows: Customs revenue, including the sum apportioned to the fixed budget, \$29,000,000; port and port improvement taxes, \$1,200,000; consular fees, \$1,600,000; communications revenue, \$2,000,000; land tax, \$14,038,800; national lottery, \$4,000,000; special revenue of the Loan including the amounts for the fixed budget, \$3,800,000. Of this revenue, \$40,573,409.43 is to be applied to the expense items of the budget for 1922-23 as follows: Presidency of the Republic, \$182,385; Department of State, \$1,340,709.47; Department of Justice, \$253,665; Department of Government, \$6,798,052.50; Department of Treasury and related bureaus, \$3,569,918.90; Department of Public Instruction and Fine Arts, \$8,424,851.54; Department of Public Works, \$3,713,518; Department of Public Health and Charity, \$4,749,508.05; Department of Agriculture, Commerce, and Labor, \$783,973; Department of War and Navy, \$9,516,024.75; and special fund for veterans in accordance with the law of April 12, 1922, \$1,240,803.22. From the same revenue \$14,278,692.68 is to be paid on the interest and amortization of the foreign and internal debts, and for the support of the legislative and the judicial branches of the Government. Of the balance of \$786,697.89, \$600,000 is to be a special fund for port improvement.

DOMINICAN REPUBLIC.

PUBLIC WORKS. —From the proceeds of the 1922 loan the Government has appropriated a sum not to exceed \$100,000 a month for public works.

GUATEMALA.

BUDGET.—The budget for the present fiscal year from July 1, 1922, to June 30, 1923, gives the following appropriations for the different

branches of the Government: Government and Justice, 38,676 gold pesos and 67,377,480 paper pesos; Hacienda and Treasury, 93,645 gold pesos and 19,805,467.84 paper pesos; Public Credit, 235,556.88 gold pesos and 416,478 paper pesos; Foreign Relations, 171,743.27 gold pesos and 2,625,600 paper pesos; Promotion, 46,676.08 gold pesos and 33,326,914.84 paper pesos; War, 66,978,635 paper pesos; Public Instruction, 50,806,700 paper pesos; Agriculture, 7,860 gold pesos and 2,178,400 paper pesos, for which departments the total is 594,154.23 gold pesos and 243,515,675.68 paper pesos. There is also an appropriation of 1,700,000 pesos, representing the salary of deputies during the recess of the Assembly, and of 5,000 pesos a month for the directors of institutes and normal schools.

HONDURAS.

CUSTOMS REVENUE.—The revenue from the customs for the first quarter of 1922, including the 5 per cent gold surcharge, was: January, 452,524 silver pesos; February, 316,743 silver pesos; and March, 344,007 silver pesos. The liquor revenue for the first quarter was: January, 211,881 silver pesos; February, 161,804 silver pesos; and March, 146,019 silver pesos.

GOVERNMENT REVENUES AND EXPENDITURES.—From August, 1921, to January, 1922, the revenues amounted to 3,833,470.33 silver pesos, of which 2,355,540.19 pesos were customs receipts and 1,039,192.36 pesos for monopolies, the other items being stamp taxes and special revenues. The expenditures for the same period were 2,981,777.91 silver pesos, of which 863,929.78 pesos were paid out for the War and Navy Department, 571,567.89 pesos for the Department of Government, 423,440.44 pesos for Promotion, 102,260.75 for the Department of Justice, 125,900.58 pesos for Public Instruction, 190,728.24 pesos for the Treasury Department, 86,534.32 pesos for the Department of Foreign Affairs, 316,554.38 pesos for the collection of revenues, and 300,639.53 pesos for the public debt.

MEXICO.

CONVENTION OF FOREIGN DEBT.—The Secretary of Hacienda and Public Credit of Mexico and a group of international bankers signed a convention June 16 in New York, which covers all phases of the foreign debt of Mexico and the bonds of the National Railroads.

The following is quoted from the statement of the International Committee of Bankers on Mexico in *The Journal of Commerce and Commercial Bulletin*, June 17, 1922:

* * * The more important points covered in the agreement relate to the handling of current interest, arrears of interest, and the railways. The plan of adjustment relates to all external Mexican Government debt, direct or guaranteed, the National Railways debt, and certain so-called internal Government debt largely held outside

Mexico, the total face value of the securities covered being over \$500,000,000 gold, on which the interest in arrears amounts to approximately \$200,000,000.

As to current interest, cash payments, in varying proportions among the different bond issues, are to be begun after January 2, 1923, out of a special fund as provided for in the agreement; the schedule of disbursements in general to be based on the relative values and priorities of the different issues of bonds. For such part of current interest as is not met in cash, scrip will be issued and redeemed in due course, certain funds being made available for this purpose.

The special fund for current interest, etc., will be increased each year until January 1, 1928, when full service of the debt will be resumed. The oil export taxes and a surcharge on railway gross receipts will be paid into this special fund.

As to back interest, all cash payments are to be waived. The matter will be arranged by the deposit of overdue coupons with a trustee. Against these coupons receipts will be issued, to be amortized without interest over a period of time. . . .

As to the railways, they are to be operated by private management as before the revolution. The Government will assume by indorsement all railway debt not previously guaranteed. . . .

The convention was ratified by President Obregon on August 7, 1922, and now awaits action by Congress, which convenes in September.

TAX ON CAPITAL.—See page 299.

LEGISLATION

ARGENTINA.

PETROLEUM REGULATIONS.—On June 3 the President issued a decree of reorganization for the petroleum fields of Comodoro Rivadavia, providing that the national petroleum deposits be made a directorate general under the Ministry of Agriculture, henceforth to be known as the “Dirección de los Petrolíferos Fracoles” (Directorate General of Official Petroleum Deposits). The Ministry of Agriculture is to fix oil and by-products prices periodically.

BRAZIL.

FIXING RESPONSIBILITY FOR LOSS OF MERCHANDISE.—Dr. Epitacio Pessoa, President of the Republic, has issued decree No. 15518, of June 13, 1922, establishing measures calculated to fix the responsibility for the loss of merchandise contained in cases showing signs of violation. According to the terms of the decree all cases which, at the time of unloading, shall show signs of having been opened, broken, crushed, or otherwise damaged, are to be tied and sealed in wax with the seal of the customhouse, in the presence of the captain of the vessel, or his proper representative, and of the guard detailed

to witness the unloading. In case the captain of the vessel should purposely fail to be present at the above-mentioned formality or to send some one in his place, this circumstance is to be mentioned in the proceedings. It is against the law to place in the same storehouse merchandise imported from abroad and goods of native production or moved by coastwise navigation. No case or piece of merchandise held in the storehouses of companies or customhouses shall receive clearance save in the presence of the checking officer in charge of the same. The outside doors of the storehouses shall remain closed in the absence of customhouse checking officers.

THE BRAZILIAN HYDRO ELECTRIC CO.—President Pessoa has authorized the Brazilian Hydro-Electric Co., with headquarters in Toronto, Canada, to operate in the Republic. The object of this company is to utilize waterfalls, construct dams, open wells, and, in short, turn to account sources of hydraulic energy in general for the purpose of generating electric power to be applied to the industries and the operation of public utilities. The company has a capital of \$5,000,000, distributed among 50,000 shares of \$100 each.

CHILE.

PROPOSED LEGISLATION.—Among the items of legislation either pending or to be introduced, advocated by the President in his recent message to Congress, were the following: Revision of the constitution, formulation of the labor code, the formation of cabinet portfolios of agriculture and of labor and social welfare, and the improvement of the legal status of women and children. On the first-named topic President Alessandri believes that the President and Vice President should be chosen by popular vote.

In speaking on the labor code, the President announced his belief in the necessity of greater diffusion of popular education, campaigns against alcoholism and social diseases, a minimum wage, labor accident compensation, and conciliation and arbitration courts. He spoke as follows regarding the legal rights of women and children:

It has been the constant care of my Government to improve the legal status of women and of both legitimate and illegitimate children. I note with profound satisfaction that this subject * * * is being studied by a special Senate commission, and I venture to indulge the hope that the Republic will soon have a law investing the Chilean woman with the rights of citizenship which belong to her as a mother, as owner of the property she possessed before marriage and of that which she acquires by her own effort, and suppressing from our law antiquated statutes, the reflection of past states of civilization, which disqualify her from performing civil acts for which she is fitted by her personal characteristics and the state of education and culture which she has achieved among us.

I believe also that it is indispensable to pass a law, such as most civilized countries possess, establishing absolute divorce in favor of the woman for justifiable causes. By this I certainly do not mean to favor vice nor libertinism, but on the contrary to promote order and morality in the home, restoring liberty to unfortunate wives to whom

life has become a Calvary instead of affording them shelter and protection. The irreparable catastrophes of the home, when life is at stake, should find definite solution in the law.

The Government will lend all its aid and influence to this proposed legislation of tremendous social importance, which takes on the character of laws of liberation since it would give rights to a considerable part of the inhabitants of our country who still languish under the injustice of ancient prejudices and musty civilizations.

COLOMBIA.

PEARL FISHING AND EXPORTING.—The Ministry of the Treasury in resolution No. 235 of May 22, 1922, ruled that private persons may fish for pearls in the waters of the Republic and export them providing that they pay 10 per cent of the value of the pearls fixed by three experts, one appointed by the administrator of the customs, one by the exporter, and a third by the governor of the province from which the pearls are to be exported. If payment of this export tax on pearls is not made, the customs will not permit them to leave the country.

NATIONAL BANK.—The President has signed a law authorizing the Government to found a bank of issue, drafts, deposits, and discount. The bank is to be known as the Bank of the Republic. It will be domiciled in Bogotá with branches in the department capitals and other important cities, and will have a capital of 10,000,000 gold pesos, of which 5,000,000 will be subscribed by the nation and the other 5,000,000 by individuals or firms. The capital may be increased according to the decisions of the stockholder's meetings. Shares are to be registered, have a value of 100 gold pesos, and will not be saleable to foreign Governments. The bill also covers the emission of bank notes; coinage in gold, silver, and nickel; documents of credit; and investments, rates of interest, dividends, auditing of the bank, and other pertinent matters.

COSTA RICA.

UNIFICATION OF PAPER CURRENCY.—On May 19, 1922, the President signed and promulgated a new law immediately effective providing for the unification of the paper currency of Costa Rica and the withdrawal from circulation of the bills of the defunct Banco Comercial.

By the terms of this law the Banco Internacional is authorized to increase its issue of bank notes by 4,282,250 colones. This new issue is to be used solely for the purpose of retiring bills of the Banco Comercial and the silver certificates of 0.50, 1, and 2 colones denominations. These bank bills and certificates will be exchanged for those of the new issue and after six months from the promulgation of this law will cease to be legal tender, but the Banco Internacional will still be obliged to exchange them.

This law also transfers the silver reserve from the fiscal agents (Banco de Costa Rica) to the Banco Internacional, where it will continue under the supervision of the Secretary of the Treasury. Likewise it specifies that fractional currency of the denominations of 0.25 and 0.50 colon will not be accepted by the Government in payment of amounts of over 25 colones, nor 1 or 2 colon bills for sums over 100 colones. Private persons may also refuse to accept such payments. (*U. S. Commerce Reports, July 10, 1922.*)

CUBA.

AUXILIARY COMMITTEE OF THE LEAGUE OF NATIONS.—The President of the Republic has issued a decree creating as part of the Department of State a distinct bureau for the affairs of the League of Nations. The same decree provides that the Cuban delegation to the League of Nations have a permanent character and appoints as members Señores Cosme de la Torriente y Peraza, president, and Aristides de Aguero y Betancourt and Guillermo de Blanck y Menocal, and as alternate member and secretary general, Señor Miguel Angel Campa y Caraveda.

MEXICO.

TAX ON CAPITAL.—The President of the Republic has signed a decree providing for a Federal tax of 1 per cent on capital advanced on mortgages, consignments, or against reimbursement from the income of property. No nationality will be excepted, the only exemptions granted being to institutions for charity or public education, and to Government funds.

ARTICLE 27 OF THE CONSTITUTION NOT RETROACTIVE.—The justices of the supreme court of the nation met on May 12, 1922, to pass upon the *amparos* filed with that high judicial body, against acts of the Executive of the Republic and of the Department of Industry and Commerce—*amparos* relative to exploitations in the national petroleum zone.

The opinion rendered by the supreme court of justice was favorable to the writ of *amparo*. In this manner a clear and definite juridical basis has been established concerning the nonretroactivity of article 27 of the constitution, thus denying to this chapter all confiscatory effects.

During the discussion of this important matter the justices of the supreme court arrived at the conclusion that article 27 of the constitution does not injure either in spirit or letter any interests acquired prior to the promulgation of the constitution (February 5, 1917); and that on the contrary said article in its fourth paragraph, far from lending itself to a retroactive interpretation, expresses with absolute precision that such interpretation must not be given.

The supreme court, having favorably decided five writs of *amparo*—the latter being those filed by the Tamiahua Petroleum Co.—has established a juridical basis which will serve in the future as a basis for the interpretation of the law in all those cases which, like those above mentioned, may come under the article of the constitution mentioned; these conclusions having been adopted by the highest tribunal of Mexico as a proof of its regard for property rights in the subsoil.

PARAGUAY.

CONSULAR MANIFESTS AND BILLS OF LADING.—By decree No. 14326, amplifying decree No. 11344 of February 28, 1920, and dating from March 12, 1922, the customhouse manifests and bills of lading for shipments made to Paraguay must be legalized by the Paraguayan consul in the place of origin, port of shipment, or last point of transshipment in a foreign country. Numerous details are required. The full text of the decree was published in the *Diario Oficial*, No. 760, dated January 31, 1922.

PERU.

COMMISSION FOR THE PROTECTION OF INDIGENES.—In May the president issued a decree creating the Patronato de la Raza Indígena, whose purpose is to organize the protection of the indigenes and to stimulate their economic and cultural development. The Archbishop of Lima is named chairman of the central committee, and departmental and provincial committees are also to be organized in places where they are necessary.

CITY ADDITION.—A presidential decree of May 30 permits public employees and officials, both civil and military, to purchase lots in the Sta. Beatriz city addition of Lima which the Government has in charge for 10 per cent cash payment and 2 per cent monthly thereafter, the latter amount to be deducted from their salaries. Other purchasers are required to pay cash in full.

SALVADOR.

SANITARY REGULATIONS.—By recommendation of the bureau of sanitation an executive regulation for the entire Republic has been issued requiring that every house less than 84 meters distant from the sewer shall have a water-closet installed. When the town has no sewer, each house must have a properly ventilated privy, built according to certain specifications. A census is to be taken of houses to see that the regulations are complied with, and in case of the owner's failure to do so, he will be fined, and the sanitation authorities will have the water-closet installed at his expense.

INTERNATIONAL TREATIES

BRAZIL-PERU.

EXTRADITION TREATY.—The extradition treaty signed by Brazilian and Peruvian representatives on February 13, 1919, has been ratified by Peruvian Legislative Resolution No. 4462, the ratification having been signed by the President of Peru April 28, 1922. It was likewise approved by the Brazilian Congress, whose resolution was sanctioned by the President of Brazil in decree No. 15506 of May 31, 1922, as published in the *Diario Oficial* of Brazil June 4, 1922. The full text of this treaty may be found in *La Crónica* of Lima for May 24, 1922.

CHILE-COLOMBIA.

TREATY OF ACADEMIC INTERCHANGE.—Ratifications of this treaty were exchanged in Santiago on June 13, 1922, by the Chilean Minister of Foreign Affairs and the minister of Colombia in Chile. (*Mercurio de Santiago, June 13.*) (See BULLETIN for April, 1922.)

PARAGUAY.

HISPANIC-AMERICAN POSTAL CONVENTION.—The Senate and Chamber of Deputies have passed a bill ratifying the Hispanic-American Postal Convention, signed in Madrid on November 13 and 15, 1920, by the representatives of the American countries and the Spanish Government. (*Tribuna, Asunción, May 23, 1922.*)

PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

TEACHERS' EXCURSIONS.—In the Province of Corrientes teachers in the national and provincial schools are organizing excursions for study and recreation, visiting the great Iguazú Falls, the yerba mate plantations in Misiones Territory, and the Jesuit ruins in the same territory on the banks of the Upper Paraná.

CHILE.

SCHOOLS IN 1921.—The following data regarding Chilean schools in 1921 were taken from the President's message of June 1, 1922. The number of pupils registered in the 3,299 public primary schools was 377,050, an increase of nearly 80,000 over the registration of 1920, due to the compulsory attendance law. The average attendance was 274,387. Of the 8,847 teachers in these schools, 46 per cent were normal school graduates.

In the 15 normal schools there were 1,926 students, 369 graduating. Each normal school has a practice school attached.

In the primary schools the following shops for handiwork were in operation: 796 for sewing, in which 93,000 pupils were instructed; 69 for weaving; 117 for domestic science (double the number in 1920), training more than 30,000 pupils; 373 for manual education (an increase of 29), where 8,950 pupils have been instructed in woodwork, box-making, basket-making and modeling.

The army has also maintained primary schools, in which 94 per cent of the illiterate conscripts have been taught.

Special attention was given to primary agricultural instruction. Such training was begun in 4 normal schools and was given besides in 58 primary schools and 6 centers of agricultural teaching.

The schools which give further technical training to graduates of primary schools, fitting them to earn their living, numbered seven. They were equipped with 27 shops and had 2,406 pupils in attendance.

In the secondary schools for boys there were nearly 19,000 students, and in those for young women more than 15,000—in both cases an increase.

Popular extension concerts and art exhibitions were given under the auspices of the Conservatory of Music and of the Fine Arts School and Museum.

Six hundred and thirty-nine degrees were conferred by the University of Chile.

Technical education for both men and women, including courses in agriculture, mining and industry, received particular attention. The Agricultural Institute graduated 39 agricultural experts. The total registration in the schools of mines, agriculture and industry was 1,780, while 5,000 pupils were in attendance at the vocational schools especially for girls. A council has been created for the purpose of still further improving these schools.

AMERICAN LITERATURE.—The Chile-American Association has presented to the Andrew Carnegie Association of Students of English of the Instituto Pedagógico a collection of works of American literature, a gift which was greatly appreciated.

COLOMBIA.

STUDENTS IN ANTIOQUIA UNIVERSITY.—The total enrollment of the University of Antioquia for 1922 was 738 students, of whom 362 were in the secondary school; 189 in the university section; 154 in the school of medicine and natural sciences; and 33 in the school of law and political science.

INSTRUCTION IN THE DEPARTMENT OF NARIÑO.—During the school year of 1921, there were 301 schools in the Department of Nariño, of which 276 were departmental and 25 municipal, with a total registration of 12,406 boys and 9,610 girls. In 1921, 570 boys and 379 girls finished the course of instruction. In the school year which commenced in October, 1921, 303 schools had a total registration of 22,835 pupils. In 1921 the University of Nariño had an enrollment of 111 students, of whom 76 were in the school of philosophy and letters and the commercial course, 11 in mathematics and engineering, and 24 in law and political science.

COSTA RICA.

SCHOOL FACTS.—The President in his message to Congress read May 1, 1922, reported that during 1921 there were 1,315 teachers employed in the schools, which furnished instruction to 35,576 pupils, or 2,740 more than in 1920. The figures for the present year, he said, show a similar increase.

SCHOLARSHIPS.—The sum of 700 colones a month has been appropriated by Congress to cover the expenses of the 14 students of the Province of Guanacaste, 2 from each canton, in the Liceo of Costa Rica. The Department of Public Instruction is to make the arrangements for the distribution of the scholarships.

DOMINICAN REPUBLIC.

MAINTENANCE OF SCHOOLS.—For the year from June 1, 1922, to May 31, 1923, the entire proceeds of the property tax will be devoted to the maintenance of schools.

GUATEMALA.

1921 SCHOOL YEAR.—According to the report of the Department of Public Instruction for the school year of 1921, there were 87 night schools for laborers and 1,342 elementary schools open. New schools established were three kindergartens, eight elementary schools, 13 coeducational schools, 18 laborers' night schools, and 33 additional grade classes. In addition to the opening of night schools for laborers, libraries have been established in a number of towns. The total enrollment of the primary schools for the year was 37,563

pupils. There were 8 secondary schools, of which 5 were for boys and 3 for girls, and 8 normal schools, of which 5 were for girls and 3 for boys.

HAITI.

FLAG DAY.—On May 18 the University of Haiti celebrated the one hundred nineteenth anniversary of the creation of the national flag. Appropriate exercises were held in a Port-au-Prince theater, in which representatives of several schools took part. Delegations from the primary and secondary schools and a large number of guests were present.

RECOGNITION OF EDUCATORS.—The valuable services of 21 members of the teaching profession have been recognized by the Secretary of Public Instruction, who conferred on them diplomas of honor and made them members of the University of Haiti, in token of public gratitude.

MOLIÈRE TERCENTENARY.—The tercentenary of Molière was celebrated by the students in the St. Louis de Gonzague School, Port-au-Prince, who performed scenes from several of the famous dramatist's plays.

HONDURAS.

SCHOOL FACTS AND FIGURES.—From the latest report of the Ministry of Public Instruction (1920-21) the following facts were taken: Teachers' conferences were organized in the departments during the year for the discussion of school problems. There were 922 schools for boys and girls, of which 905 were public, 17 private, 531 urban, and 391 rural schools. Special effort had been made to increase rural schools, 268 new ones being opened, and a small subsidy given to each from the budget appropriation.

There were 36,031 students enrolled, the average attendance being 27,656, or 1,782 more than the previous year. The number of teachers in the schools was 1,241, of whom 474 were qualified teachers of primary education and 137 held certificates of ability; the remainder were uncertificated.

The number of buildings used as schools increased from 822 in 1920 to 909 in 1921, of which 541 were municipal school buildings, 195 rented, 160 town halls and 13 private buildings turned over for school use.

The number of pupils in the National Kindergarten was 257. There were 411 students registered in the normal schools, and 205 in the secondary schools, while the enrollment of those taking commercial courses, given in connection with three different schools, was 192. The students in the National University numbered 98.

In foreign scholarships the State expended 3,730 gold pesos monthly, plus 5,930 pesos for extraordinary expenses. The total number of

students in foreign countries was 44, of whom 27 were in the United States.

MEXICO.

DEPARTMENT OF PUBLIC INSTRUCTION.—The beautiful new building of the Department of Public Instruction on Avenida República Argentina in Mexico City was opened with appropriate ceremonies on July 9, 1922. The building covers an area of 8,540 square meters and is the second largest building in the capital, the first being the National Palace. The architecture is of the neoclassic Renaissance style. In the second patio there are ornaments in the four corners representing the Aztec, Greek, Spanish, and Indian forms of civilization. Construction was begun June 1, 1921; the total cost is estimated at 800,000 pesos.

CAMPAIGN AGAINST ILLITERACY.—The children's army, organized under the Department of Public Instruction, proposes to carry on a crusade against illiteracy, having already made great progress against it. All Mexican children of the fourth, fifth, and sixth years of the public or private schools belong to this children's army, elect their group vigilance committees by ballot, under the direction of the teachers, and have a chief to each 10 children. Under this organization each child finds some person, whether young or old, in his daily life, who is illiterate and with the consent of this person the child reports to the committee, which in turn reports to the Department of Education. The child crusader is then provided with the material for teaching his illiterate acquaintance to read, write, and figure.

ARGENTINE SCHOLARSHIPS.—The Mexican consul general in the Argentine Republic has informed the Department of Foreign Relations that the Argentine Government has offered three military and two aviation scholarship to Mexican students.

NATIONAL UNIVERSITY OF THE SOUTHEAST.—The Constitutional Governor of the State of Yucatán, by authorization of the State congress, has established the National University of the Southeast in Mérida, Yucatán. The State government leaves the university free in the management of professional and normal instruction, only aiding the school financially with the appropriations assigned in the budget. The university was opened on March 1, 1922, by the board of regents. Dr. Eduardo Urzaiz is rector; Dr. Bernadino Enríquez, dean of the school of medicine and pharmacy; Licenciado José Castillo Torre, director of the school of jurisprudence; and Engineer Manuel Amábiles, dean of the school of engineering.

NICARAGUA.

RURAL SCHOOLS.—Rural schools are to be opened in Tololar, Platanar, and Lecheguagos. Later new schools are also to be opened in the towns of Chacraseca, Barrio, and Tolapa.

PANAMA.

VOCATIONAL SCHOOLS FOR WOMEN.—In addition to English, Spanish, stenography, dressmaking, embroidery, weaving, and other manual arts, taught in the Women's Free Vocational School of Panama, lectures are now being given in civic education. Classes in telegraphy and bookkeeping are soon to be opened.

PARAGUAY.

PROFESSIONAL DIPLOMAS IN NORMAL AND MANUAL TRAINING.—By presidential decree No. 14986 teachers who have the degrees of B. S. or B. A. and wish the professional diploma in normal training are required to pass examinations in pedagogy, child psychology, school methods, and music, and to have two years' practice in a public school under the direction of a professor from a normal school. For a diploma as elementary normal teacher they must pass the second term in the normal school and teach five years for the Department of Education, and for one in manual training they must pass examinations in psychology and school methods, and teach one year in a public school under the direction of a professor of manual training.

Recognition of degrees conferred by foreign academic institutions will be decided by the National Council of Education, subject to the approval of the President.

PERU.

FRIENDLY RELATIONS COMMITTEE.—A representative of the Friendly Relations Committee of New York has been visiting Peru and other South American countries. The object of this committee, which is composed of Americans holding important positions in the business and social world, is to aid foreign students coming to the United States in their adjustments to student life in this country. The committee works in cooperation with the educational section of the Pan American Union and other institutions.

UNIVERSITY OF CUZCO.—This university is composed of four schools: Letters, philosophy, and history; physical and natural science; law; political and economic sciences. In accordance with the new education law, the faculty of each school elects its professors and determines the program of courses of study. One hundred and sixty-five students were matriculated in 1921.

The university has been placed in charge of the Archæological Museum of Cuzco and of the monuments of that region, so rich in archæological interest. It is intended to take an inventory and photographs of all the pre-Incaic, Incaic, and colonial monuments in the Department.

SALVADOR.

PARENT-TEACHERS MEETING.—In May the principal of the San Salvador Young Men's Normal School invited the parents of the pupils in the model school attached to the former institution to meet for a discussion of the problems related to the education of their children. Three normal-school students gave brief talks on hygiene, ethics, and education.

URUGUAY.

MERCHANT CAPTAIN.—The first merchant captain to be graduated by the naval school is Señor Nicolás Altesor, who received his papers in May after having completed his studies and the 30,000 miles of voyages required.

VENEZUELA.

PUBLIC INSTRUCTION IN 1921.—In his report on school activities for the year 1921 which he submitted to Congress, the Minister of Instruction shows the progress made in the branches of physical culture and sub-primary instruction during the past year, and the benefits that the students have derived therefrom. The physical training classes are given in a park recently acquired by the Government and a gymnasium has been installed in the National Hippodrome.

The municipalities have devoted 52 hectares of land to maternal schools and grounds for physical culture, and by decrees of July 2 and 15, 1921, the "Hermenegilda de Gómez" sub-primary school was opened in memory of the Centenary of the Battle of Carabobo.

With regard to primary instruction, the Minister states that the number of certificates issued, amounting to 843 in 1920 and 1,620 in 1921, is a proof of the progress made during the last few years. The Government pays 230,000 bolívares a year for the rent of school buildings, not including the expenses of the municipalities and provincial governments.

Physical culture has been taken up with great enthusiasm in Caracas, and on September 17, 1921, rules were issued making it obligatory for students from 7 to 21 years of age. The park of the estate bought by the Government for the young men's normal school has been equipped with the necessary apparatus for the girls, who on Saturday afternoons, after their schoolwork for the week is done, spend pleasant hours in the open air, enjoying the spacious grounds.

By presidential decree of February 24 a Federal secondary school was opened in Asunción, the capital of Nueva Esparta, making 17 Federal institutions of this rank. There are also 9 private schools for secondary instruction which have been authorized to conduct experimental work in connection with technical studies. Some of

the private schools have ordered laboratory equipment from abroad, and the parents of the students of Carora have donated all the necessary instruments for the practical study of physics, chemistry and natural history to the Federal school. Three physics laboratories have been installed lately in the schools of Caracas.

There has also been a great increase in the number of Venezuelan girls who attend the secondary schools and take business and art courses. Many of those who have been given certificates of superior primary instruction requested the Minister of Instruction to provide a course in physics, so the equipment for a laboratory was given to the girls' lyceum, and a course of chemistry will be given in the normal school for women.

Much progress has also been made in superior and special instruction. By a presidential decree of September 14, 1921, courses in Italian language and literature are to be given in the public schools; courses in legal medicine and toxicology in the medical school; courses in dressmaking at the "Carrillo Guerra" Federal School; and a prize, consisting of a scholarship in the official institutions, will be awarded every six months in the school of sculpture.



SOCIAL PROGRESS

ARGENTINA.

ABORIGINES' CONGRESS.—A three days' congress of 800 aborigines from Neuquén, Chubut, and Río Negro was held during May in Chacay Huarruca. One of the resolutions passed by the congress was to petition for a change in the homestead law. It was also decided to cooperate with the Pro-Indian Society of Buenos Aires.

BRAZIL.

RURAL PROPHYLAXIS.—The Service of Rural Prophylaxis of Florianopolis, capital of the State of Santa Catharina, has established an itinerant division for the treatment of leprosy and venereal diseases, under the direction of Dr. Tavares Lobato.

CHILE.

HOUSING EXHIBITION.—The Revista Económica, organ of the National Chamber of Commerce, invited the cooperation of the Consejo Superior de Habitaciones for holding an exhibition of plans, models, and other informative material concerning the problem of cheap housing. The exhibition was held in the Fine Arts Museum.

COSTA RICA.

VACATION COLONY.—The Summer Vacation Colony Association in San José is endeavoring to provide a permanent colony in Cartago for all sickly, undeveloped school children. The plan is to have a sort of farm school in place of the month's visit to the country which has been furnished up to the present.

CONGRESS AIDS SALVADOR.—The Costa Rican Congress unanimously approved a bill which appropriated \$5,000 of the national funds for the assistance of the people of Salvador who were in distress as the result of the terrible floods which took place in June.

CUBA.

CENSORSHIP.—The Secretary of Government has issued an order constituting a censorship committee of five persons of high moral character, appointed by him to pass on moving pictures, in order to eliminate films which teach the ways of criminals and corrupt youth.

ECUADOR.

SOCIETY FOR PROTECTION OF CHILDREN.—This association of Guayaquil is building a hospital for the León Becerra children's home.

GUATEMALA.

SALVADOR RELIEF.—The Government of Guatemala sent \$5,000 as a first aid for the victims of the floods in Salvador which occurred the middle of June.

HOSPITAL FOR VENEREAL DISEASES.—The director general of police has started a hospital for venereal diseases in Guatemala City. It occupies a modern building, well equipped for the purpose it serves.

HONDURAS.

CONTRACT WITH THE ROCKEFELLER FOUNDATION.—In March the Government of Honduras made a contract with the Rockefeller Foundation for the sanitation of the country. The Rockefeller Foundation agreed to establish offices of hookworm prevention and a general board of health and to provide 66 per cent of the funds for the necessary expenditures during the first year and 34 per cent during the second year, Honduras to assume the full expense during the third year. The Government is to provide every aid and facility to the Foundation in its work.

As a result a hookworm office has been opened in Tegucigalpa, and examinations are being made in different towns of the Republic. In Tela of the 213 individuals examined 72 were negroes from San Juan.

GOTA DE LECHE.—A free milk station has been established in Santa Ana with the governor of the department as president.

MEXICO.

SALTILLO HYGIENE EXHIBITION.—The organization committee of the Seventh National Medical Congress which meets in Saltillo, Coahuila, from September 3 to 10, has prepared to open, in connection with the congress, an international exposition of all articles connected with medicine and hygiene, to which all producers and manufacturers of such products have been invited to contribute.

PANAMA.

BOYS' WEEK.—Boys' week was held in the city of Colon from June 11 to 17 and in Panama from June 26 to July 3. In the former city one of the events of the week was a parade of 2,500 children. Rotarians in both Panama and Colon took an active interest in the event.

PANAMAN NURSES IN ANCON HOSPITAL.—According to plans now under consideration graduates of the Santo Tomás Hospital training school for nurses will be employed in Ancón Hospital, in the Canal Zone, where they should be especially useful in the wards where Spanish is spoken.

PARAGUAY.

PARAGUAYAN RED CROSS.—The president of the International Committee of the Red Cross has announced that the Paraguayan Red Cross has been recognized as a member of the International Red Cross.

PERU.

CHILD WELFARE COMMISSION.—To this commission, whose formation was mentioned in the last number of the BULLETIN, has been given over the administration of the zoological and botanical gardens and of the park. The Department of Commerce, however, still retains oversight of the animals and plants.

The Convalescents' Home at Chosica has also been intrusted to the commission. It will accommodate 50 children, who will be selected from the Lima school girls under 13 years of age most in need of the beneficial effects of the Chosica climate. Salesian nuns will be in charge of the Home.

The sum of Lp.100 a month has been granted to the day nursery at the Lima central market. School medical inspection and employment of children in factories are under discussion.

Further funds for the commission have been provided by the Minister of Promotion, who has allotted to it the fines collected from pharmacies and similar establishments under the law of July 7, 1916,

and the increase gained by raising the fees for registering trade-marks and patents.

A departmental committee of women, working with the national commission, has been formed in Lima. Dr. Osma, in addressing the opening meeting, stated that the number of deaths of children under one year in Lima was 1,146 in 1917, 1,312 in 1918, 1,209 in 1919, and 1,352 in 1920; the infant mortality per 10,000 inhabitants being 218, 208, 189, and 198 for the years named. He also said that in 1921, out of the 6,957 births occurring in Lima, 1,900 took place in the maternity hospital of the public charity hospital. "Assistance to the mother during pregnancy and to the child during infancy," declared Doctor Osma, "should not be given as charity or humiliating alms."

The first act of the departmental committee was to appoint several members to bear to Señora Juana Alarco de Dammert, founder of the Lima Cuna Maternal, the committee's good wishes on the occasion of the twenty-fifth anniversary of the initiation of her work for children.

COMMISSION FOR THE PROTECTION OF INDIGENES.—See page 300.

CITY ADDITION.—See page 300.

SALVADOR.

SANITARY REGULATIONS.—See page 300.

URUGUAY.

NURSES AND INFANT MORTALITY.—Using data given by Dr. Julio A. Bauzá, director of the baby welfare stations in Montevideo, La Mañana of that city presents in an editorial a highly interesting statement of infant mortality conditions and considerations arising therefrom. At the beginning of 1921 the population of Montevideo was given as 363,000; somewhat more than 2,000 children under 2 years of age died in 1920. The public welfare board spends almost \$1,000,000 annually for the Larrañaga Asylum, the protection to infancy service, Pereira Rossell Hospital and mothers' homes. More doctors, La Mañana believes, are not necessary for future work, but many intelligent, well-prepared nurses. The Uruguayan Red Cross has offered to supply this need, at least partially, by offering free to the public welfare board the services of 100 nurses. "It is a demonstrated fact," says La Mañana, "which needs no discussion, that ignorance is the chief cause of infant mortality. To control this factor the teaching of the kindly, intelligent nurse is necessary in the homes of the poor."

THIRD SOUTH AMERICAN HYGIENE CONFERENCE.—Invitations to this conference, which will meet in Montevideo in January, 1923, have been sent out by the Ministry of Foreign Affairs to the Governments of the South American Republics.

In connection with the conference there will also be a medical pedagogy meeting to which all medical schools of the participating nations will be invited to send delegates. Curricula, the technique of medical studies, and the best means of advancing scientific interchange in South America will be topics of discussion.

VENEZUELA.

ORGANIZATION OF THE RED CROSS OF VALENCIA.—In May the Red Cross was organized in the city of Valencia. The hospital contains a lecture hall, a free dispensary, consulting rooms, operating rooms, and everything necessary for carrying out the humanitarian work for which it was established. It also maintains an ambulance service.



GENERAL NOTES

BOLIVIA.

TIAHUANACU PALACE.—In compliance with an official communication from Congress recommending the purchase of the great ruins of the Inca palace at Tiahuanacu, situated between Viacha and La Paz, the President of Bolivia on May 22 authorized the Government purchase of the property for 450,000 bolivianos.

DEATH OF DR. FIDEL VALDÉZ.—The death of Doctor Valdéz, eminent statesman and lawyer, which occurred on May 17, 1922, in Sucre, has been deeply mourned by all those who knew him. Doctor Valdéz held many high positions during his lifetime and played an important part in the government of his country. During the administration of General Pando, he held the office of Secretary of the Treasury; in 1908 he was elected Vice President of the Republic and was afterwards justice and chief justice of the supreme court, in which he was a prominent and distinguished figure, being considered a high authority on legal matters.

BRAZIL.

BRAZILIAN LEGATION.—The Brazilian Government has acquired the mansion situated at Calle Callao 1555, Buenos Aires, as the permanent location for the Brazilian legation in Argentina. According to the Review of the River Plate, the property cost 900,000 pesos.

FREDERICK ARCHER UPTON.—Frederick Archer Upton, head of the firm of Upton & Co., of São Paulo, who belonged to the fourth gener-

ation of his family to trade with South America, died in the city named on June 10, 1922. Born in Rio Grande do Sul, where his father, the late George B. Upton, was United States consul, Mr. Upton was educated in the United States, but returned to his birth-place in 1870, establishing his business of importing agricultural and industrial machinery of all kinds in São Paulo in 1879. Agencies were later opened in Rio de Janeiro and the principal States of Brazil. Mr. Upton was also greatly interested in fine poultry and animals. He carried on the best traditions of commercial intercourse between the United States and Brazil, and his death is greatly regretted.

TEMPORARY HOME FOR THE CHAMBER OF DEPUTIES.—The Chamber of Deputies or lower house of the Brazilian Congress, has been removed to one of the wings of the National Liberty pending the construction of the definite Congress Building. The chamber had met during almost the whole of the century of independence in the building which was the old jail of the colonial period and which had been adapted to its new functions. A few years ago, the Chamber of Deputies removed to Monroe Palace. The last mentioned building will now be used for the headquarters of the executive committee of the centennial exposition.

CHILE.

GABRIELA MISTRAL.—The distinguished Chilean poet and teacher, Gabriela Mistral, left Chile in June for Mexico where, as the BULLETIN has already noted, she will be the guest of the Department of Education, lecturing on poetry and pedagogy.

COLOMBIA.

CROSS OF BOYACÁ.—Upon the occasion of the centenary of the Battle of Pichincha the Ministry of War passed a resolution conferring the cross of Boyacá of the highest class upon His Excellency, the President of Ecuador, Dr. José Luis Tamayo; the minister of Ecuador to Colombia, Don Augusto Aguirre Aparicio; Col. Don Octavo G. Icaza, Minister of War and Navy of Ecuador; and on Gen. Rafael Almeida Suárez, chief of staff of the Ecuadorean Army.

MONUMENT TO JORGE ISAACS.—For some time the Jorge Isaacs committee of the city of Cali has been collecting funds to raise a monument to the author of "María." This committee lately ordered a model of the monument from the Spanish sculptor, Don Antonio Parera, famous for statues in Madrid, Barcelona, Gerona, Coruña, Cádiz and other cities. The model is composed of a base and column on which appears a statue of the author in an attitude of meditation. On the front face of the pedestal is outlined the figure of Poetry; and the rear and side faces bear scenes from his most famous poems.

At the base is the seated figure of *María*, the heroine of the book, bearing the roses which she daily offered to *Efraím*.

COLOMBIAN-VENEZUELAN BOUNDARIES.—The Swiss Government has appointed a commission of experts to mark the Colombian-Venezuelan boundary. The mission will be under the charge of Col. Paul Lardy.

COSTA RICA.

SEÑOR JOAQUÍN AGUILAR GUZMÁN.—On June 3 of this year Señor Joaquín Aguilar Guzmán, justice of the court of appeals, died in San José. He had had a long and busy legal career since his graduation from the University of San Carlos, Guatemala, and an active public life, in which he displayed the highest qualities of character and intelligence. Among the positions held by Señor Aguilar Guzmán were those of deputy in Congress, mayor of San José, governor of the province of that name, and inspector of municipalities. He had been a justice of the court of appeals since 1919.

CUBA.

DEATH OF GEN. EMILIO NÚÑEZ.—Gen. Emilio Núñez y Rodríguez died in Habana on May 5. He was a patriot and leading figure in the Revolutions of 1868 and 1895, being made a general of division in the liberating army. In the War of 1895 he was head of the expeditionary department of the Cuban delegation to the United States, and as such fulfilled the mission of conducting expeditionary forces and munitions of war to his country to fight Spanish rule. When the Spanish régime came to an end General Núñez filled the posts of Civil Governor of Habana, delegate to the constitutional convention, Provincial Governor of Habana, Secretary of Agriculture, Commerce and Labor, and Vice President of the Republic. For many years, up to the time of his death, he was president of the National Council of Veterans of the Independence, which post he filled with great ability.

ECUADOR.

ASHES OF MONTÚFAR.—On May 22 the commission sent to Colombia, where Don Carlos Montúfar fell during the War of Independence, arrived in Guayaquil with the urn containing the ashes of the illustrious patriot. Impressive funeral rites accompanied the deposition of the urn in its final resting place in the Cathedral of Quito.

CHAPEL TO SUCRE.—A chapel to Marshal Sucre built after the design of the mortuary chapel of Napoleon in Paris, and containing his ashes, was dedicated on June 4, the anniversary of the general's death in the Berruecos Mountains of Colombia. President Tamayo made an eloquent address to a large audience, which included the members of the Government and the diplomatic corps.

CENTENARY CELEBRATION.—The centenary of the Battle of Pichincha was celebrated in Quito by public exercises, which began on May 22 with a parade of 5,000 school children and patriotic exercises in the Plaza Sucre. The exposition has been mentioned in previous numbers of the BULLETIN.

In Guayaquil patriotic exercises were held, a tournament and exhibition given, and medals commemorative of the centenary distributed.

Part of the celebration in Quito was the unveiling and dedication of two monuments: One on Avenida 24 de Mayo, to the Unknown Heroes of the Independence, a beautiful column honoring more than 108,000 Ecuadoreans; and a pyramid, erected to the Army of Independence by the present army, and set upon the Cima de Libertad, or Liberty Hill, near the city, where the crisis of the Battle of Pichincha took place.

HAITI.

HAITIAN POET.—In a review of M. Louis Morpeau's *Anthologie Haitienne des Poètes Contemporains*, the Parisian paper *L'Intransigeant* praises the poems of M. Etzer Vilaire. The reviewer finds them musical, although unequal in form, charming, and the expression of lofty inspiration.

MEXICO.

EXHIBITION OF MEXICAN ART.—The Department of Industry, Commerce, and Labor has prepared an exhibition of Mexican popular arts to be sent to various cities of the United States to show the work of Mexican Indians. The pottery shown includes the green and the black ware from Oaxaca, jars, plates, and large water jars, and figurines; and fine samples of the ware of Talavera, Puebla, among which are large jars which rival in beauty and finish those of the Orient. There are also fine examples of the ware of Jalisco and Aguascalientes. The exhibition contains straw weaving, such as matting and petates (sleeping mats) from Oaxaca; cotton and wool weaves, blankets, clothes, handkerchiefs, embroidered or with drawn work, and authentic local costumes, including the picturesque dress of the Tehuana Indians. The remainder of the exhibition is composed of leather work, such as fine saddles adorned with beaten silver, and the Mexican riding costumes from various parts of the country. The exhibition is to open in Los Angeles, then will be sent to Chicago, Washington, and finally to New York.

PANAMA.

VENEZUELA'S QUOTA TO MONUMENT.—The sum of \$600 has been appropriated by the Government of Venezuela and is to be handed

over to the French minister in Venezuela for that country's quota to the monument to be erected to the pioneers of the Panama Canal.

The base of the monument will bear an inscription with a brief history of those who were interested in the project, beginning with Alvaro de Saavedra who, in 1529, under order of Charles V, made the first plans for a canal across Panama.

SALVADOR.

SANTA ANA PICTURE EXHIBITION.—The first one-man exhibition of paintings held in Santa Ana was opened in May when the work of Salvador Martínez was placed on view. The collection contained 18 small pictures, of which 8 were oils and 10 water colors. They were chiefly landscapes; "On the Hilltop," "Twilight," and "Day-break," showing scenes near Lake Coatepeque, attracted much favorable attention.

URUGUAY.

FIRST SPRING SALON.—The Fine Arts Association has decided to inaugurate a spring salon, to be opened on October 12.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO JULY 29, 1922.

Subject.	Date.	Author.
ARGENTINA.		
Argentine customs receipts in 1921.....	1922. May 11	W. Henry Robertson, consul general at Buenos Aires.
Inauguration of railway line between Bahía Blanca and Carmen de Patagones.....	do.....	Do.
Destination of Argentina's principal exports Jan. 1 to May 4, 1922.....	May 15	Do.
American fire and marine insurance companies in Argentina.....	May 18	Do.
Port improvements at Bahía Blanca.....	May 19	Do.
Extract of Buenos Aires Herald, entitled "Petroleum notes and news."	do.....	Do.
Argentine mineral deposits and industries during 1921.....	May 20	Do.
Finances of Province of Buenos Aires.....	May 22	Do.
Proposed changes in the Ministerial Departments of Buenos Aires.....	May 23	Do.
Argentine wool prospects.....	May 29	Do.
Proposed Argentine National Dairy Exhibition.....	do.....	Do.
Cereal prices, week ending June 1, 1922.....	June 9	Do.
Outward freight rates from Buenos Aires.....	June 10	Do.
Formation of National Association of Agriculture.....	do.....	Do.
Livestock in Province of Buenos Aires.....	June 17	Do.
Formation of hog-breeding association.....	do.....	Do.
BRAZIL.		
Brazilian cotton exports.....	May 29	Alphonse Gaulin, consul general at Rio de Janeiro.
Railway lines in Brazil.....	do.....	Do.
Brazilian customhouse formalities.....	May 30	Do.
Exportation of fresh fruits from Santos.....	June 5	Herndon W. Goforth, vice consul at Santos.
Market for American confectionery in Bahia.....	June 7	Thos. H. Bevan, consul at Bahia.
Exports of rubber from Para and Manaos, Brazil, and Iquitos, Peru, for May, 1922.....	do.....	Geo. H. Pickerell, consul at Para.

Reports received to July 29, 1922—Continued.

Subject.	Date.	Author.
BRAZIL—continued.		
Brazilian imports of condensed milk.....	1922. June 9	A. Gaulin.
Coal imports into Brazil during 1920-21.....	June 13	Do.
Principal exports and total imports into Brazil from January to April, 1922, in comparison with the three preceding years and 1913.....	do.....	Do.
New motion-picture film of the coffee industry.....	do.....	Herndon W. Goforth.
Importation of chemicals into Brazil.....	June 14	A. Gaulin.
Brazilian trade during first four months of 1922.....	June 15	Do.
Brazilian imports of felt hats.....	June 16	Do.
Imports of cement into Brazil, 1913-21.....	June 18	Do.
Wheat and flour imports into Brazil.....	do.....	Do.
Registration and use of automotive vehicles during 1921.....	June 25	C. R. Cameron, consul at Pernambuco.
Sugar exports from Brazil, 1911-21.....	June 28	A. Gaulin.
Brazilian rubber exports.....	do.....	Do.
CHILE.		
Demand for cottonseed oil.....	May 10	B. C. Matthews, vice consul at Antofagasta.
Fortnightly imports at Antofagasta.....	May 15	Do.
Construction work, railway electrification.....	May 29	Homer Brett, consul at Iquique.
Highway construction.....	May 30	B. C. Matthews.
Telegraph and telephone statistics of Chile for 1920.....	do.....	Homer Brett.
Commerce of Tarapacá during May, 1922.....	June 2	Do.
Sanitary drainage work in Arica.....	June 6	Egmont C. von Treschow, consul at Arica.
Declared export returns for May, 1922.....	June 9	S. Reid Thompson, vice consul at Valparaiso.
COLOMBIA.		
May report on commerce and industries.....	June 1	Maurice L. Stafford, consul at Barranquilla.
Fishing and exportation of pearls.....	do.....	E. C. Soule, consul at Cartagena.
Products of petroleum companies not subject to municipal or departmental tax.....	June 2	Do.
Market for canned goods.....	June 12	Do.
The market for work clothing.....	June 14	Do.
Contemplated public improvements in Cartagena.....	June 15	Do.
Large deposit of high-grade marble existing near Santa Marta.....	June 17	Leroy R. Sawyer, consul at Santa Marta.
Activities of American oil companies.....	June 21	E. C. Soule.
Establishment of Bank of Emission, Colombia, text of law.....	do.....	Do.
Commerce and industries of Cartagena, 1921.....	June 26	Do.
Commerce of Barranquilla, first three months of 1922.....	June 29	Maurice L. Stafford.
COSTA RICA.		
Increased duties to solve housing problem.....	June 17	Henry S. Waterman, consul at San José.
Contractors requirements in Costa Rica.....	June 22	Do.
Sisal fiber in the Limón district.....	June 29	Stewart E. McMillin, consul at Port Limón.
CUBA.		
Interest in radio apparatus in Santiago de Cuba.....	June 6	Harold D. Clum, consul at Santiago de Cuba.
New woodworking factory in Santiago de Cuba.....	June 12	Do.
Cattle raising in Cuba.....	do.....	Carlton Bailey Hurst, consul general at Habana.
Prices of cement.....	June 16	Harold D. Clum.
Sugar production of Matanzas for 1921-22.....	June 17	James V. Whitfield, vice consul at Matanzas.
Methods employed in financing the Cuban sugar crop.....	June 29	Carlton Bailey Hurst.
ECUADOR.		
Railways of Ecuador.....	May 5	Frederic W. Goding, consul general at Guayaquil.
Cession of Government monopolies in Ecuador.....	May 23	W. W. Morse, vice consul at Guayaquil.
Contractor's requirements in Ecuador.....	June 14	Do.
Reduced freight rates to European ports.....	June 16	Do.
GUATEMALA.		
Market for furniture in Guatemala.....	June 2	Henry T. Dwyer, vice consul at Guatemala City.
May report on commerce and industries.....	June 22	Do.

Reports received to July 29, 1922—Continued.

Subject.	Date.	Author.
HAITI.		
The honey industry in Haiti.....	1922. June 8	Damon C. Woods, consul at Cape Haitien.
Haitian coffee, quality and demand, production.....	do.....	Do.
HONDURAS.		
April report on commerce and industries.....	May 18	G. K. Donald, consul at Tegucigalpa.
Cattle raising in the La Ceiba district.....	June 14	Alexander K. Sloan, consul at La Ceiba.
New steamship route established.....	June 20	S. L. Wilkinson, vice consul at Tela.
MEXICO.		
Market for plumbing supplies.....	June 13	Lee R. Blehm, consul at Aguascalientes.
Tomato and cantaloupe production in district.....	do.....	W. E. Chapman, consul at Mazatlan.
Modification of Mexican import tariffs.....	June 14	Claude I. Dawson, consul general at Mexico City.
NICARAGUA.		
General information on motion pictures in Nicaragua.....	May 19	Harold Playter, consul at Corinto.
Commerce and industries of Corinto district for period from Jan. 1 to Apr. 30, 1922.	May 20	Do.
Electric-light current available in Nicaragua.....	May 22	Do.
PANAMA.		
Railway mileage in the Republic of Panama.....	do.....	George Orr, consul at Panama City.
Market for manufactures of rubber.....	May 31	Do.
Plumbing work for Santo Tomas Hospital.....	June 15	Do.
PARAGUAY.		
Railway statistics.....	May 8	Harry Campbell, consul at Asuncion.
Annual report on commerce and industries of Paraguay for the year 1921.	May 15	Do.
SALVADOR.		
Electric current available in Salvador.....	May 31	Lynn W. Franklin, vice consul at San Salvador.
Personnel of Salvadorean Health Board.....	June 15	Do.
List of telegraph offices in Salvador.....	do.....	Do.
Market for pumps and farm-lighting plants.....	June 16	Do.
Relief of sufferers from the inundations of June 12, 1922.....	June 22	Do.
Changes in the Law of Expropriations.....	June 23	Do.
URUGUAY.		
April report on commerce and industries.....	May 20	David J. D. Myers, consul at Montevideo.
Statistics showing the trade of Uruguay for the period from Jan. 1 to Apr. 31, 1922.	June 17	Do.
VENEZUELA.		
Leopard and alligator skins for sale.....	June 3	John O. Sanders, consul at Maracaibo.
Fishing industry of the island of Margarita.....	June 9	S. J. Fletcher, vice consul at La Guaira.
Market for American confectionery.....	June 14	Do.
Opening of mica deposits of Venezuela.....	June 15	Thomas W. Voetter, consul at Caracas.
New post office building in La Guaira.....	June 16	S. J. Fletcher.
May report on commerce and industries.....	June 22	Do.
Iron and steel industry.....	June 26	Wm. P. Garrety, consul at Puerto Cabello.
New petroleum law of Venezuela, 1922, Gaceta Oficial, June 13, 1922, contains text of law.	July 3	Thomas W. Voetter.

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FEBRUARY, 1922.

(Continued from August.)

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El Porvenir. Envigado. Semanario de Información. Crítica y Variedades. Weekly.
(Año 1, Series 5, No. 18, October 8, 1921.)
Revista del Banco López. Bogotá. Edificio López. Monthly. (Año 1, No. 9,
October 31, 1921.)

COSTA RICA.

- La Nueva Prensa. San José. Daily. (Año 1, No. 1, November 5, 1921.)

CUBA.

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(Año 1, No. 11, December, 1921.)
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La Semana Gráfica. Habana. Weekly. (Año 1, No. 2, December 11, 1921.)

HONDURAS.

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MEXICO.

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Primera de Dolores 8. Monthly. (Año 17, No. 10, October, 1921.)
Germinal. Mexico City. Órgano de la Sociedad Agronómica Nacional. Monthly.
Calle Capuchina 48. (Tomo 1, No. 1, November 1, 1921.)
Hospital General. Mexico City. (Vol. 1, No. 1, December, 1921.) Monthly.
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Weekly. 4a Humboldt 49. (Vol. 1, No. 3, December 10, 1921.)
El Mundo Cristiano. Mexico City. Apartado 117 bis. Weekly. (Tomo 6, No. 4,
January 26, 1922.)
El Triunfo. Aguascalientes. (Año 4, No. 222, November 22, 1921.)
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PANAMA.

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uary 6, 1922.)

SALVADOR.

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BOLIVIA.

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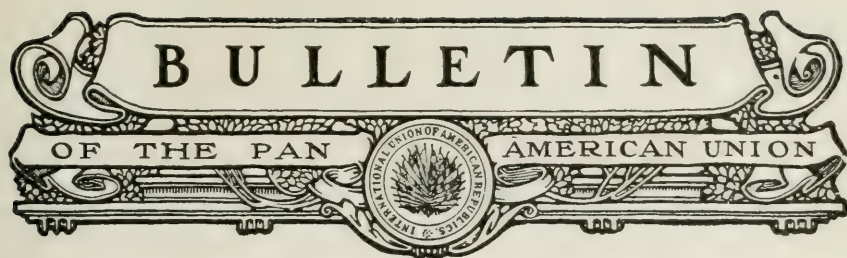
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Courtesy of The Pan-American Magazine.

DR. ARTHUR DA SILVA BERNARDES, PRESIDENT-ELECT OF BRAZIL.



VOL. LV

OCTOBER, 1922

NO. 4

DR. ARTHUR DA SILVA BERNARDES, PRESIDENT- ELECT OF BRAZIL

ON JUNE 9 of this year the Brazilian Congress officially announced the election of a new President of the Republic of the United States of Brazil. After the usual speeches and formalities, the presiding officer, Sr. Antonio Azeredo, made the customary constitutional proclamation, a most impressive ceremony, in which both chambers participated, the actual proclamation being received by the members, standing, and with every outward mark of respect toward this solemn demonstration of the will of the Brazilian people. The text of the proclamation is as follows:

The Brazilian nation has elected, the National Congress has recognized, and in its name I proclaim Dr. Arthur da Silva Bernardes, President of the United States of Brazil for the term of four years beginning November 15 of the present year and ending November 15, 1926.

The prolonged applause from the visitors' galleries, not to speak of the shower of brilliant-hued flowers with which the announcement was greeted, is a happy augury for the success of the new President-elect.

A son of Minas Geraes, that great and fertile State, larger in area than France, Doctor Bernardes will leave the governorship of his native State for the chief magistracy of the nation. Raised to the former office in 1918, Doctor Bernardes has shown himself an able and constructive executive, interested in all phases of progress, one very prac-

tical and important example of which is the splendid new College of Agriculture and Veterinary Science in Viçosa, in charge of an American expert.

Doctor Bernardes was born in the city just mentioned on August 8, 1875, his father being Dr. Antonio da Silva Bernardes, a well-known lawyer of Portuguese origin. After completing his studies in Caraça College, Minas, and the Externato Gymnasio Mineiro, in the city of Ouro Preto, he matriculated at the law school in Minas Geraes, later transferring to the São Paulo Law School, where he received his degree in 1900.

In Viçosa, his birthplace, Doctor Bernardes began the practice of his profession; there, also, he began his career of public service, being elected president of the municipal council. In 1907 he was appointed deputy to the congress of the State of Minas Geraes, and two years later was elected deputy to the National Congress. The latter position, however, he resigned to become secretary of finance of Minas Geraes during the administration of Dr. Julio Bueno Brandão.



MODERN TENDENCIES IN MEXICAN ART¹

By GUILLERMO A. SHERWELL,

Juristic Expert, United States Section of the Inter-American High Commission.

THERE is really no Mexican school of painting, sculpture, or architecture. The application of some Aztec, or rather Nahoatl, motifs in some of its monuments, like the beautiful pedestal of the statue of Cuauhtémoc in the Paseo de la Reforma, does not justify the affirmation that there is a Mexican school of architecture. The best architectural works in Mexico are Spanish. Mexican art, when not an inheritance of the colonial time, follows the styles now prevailing in the largest centers of population. From buildings so characteristically colonial as the great cathedrals of Mexico City, Puebla, Morelia, and other cities; the Old Inquisition, now School of Medicine; the College of San Ildefonso; and the School of Mines, which perpetuates the memory of Tolsa as the name of Tres Guerras lives in other marvelous monuments, we must pass to modern buildings which either are inspired by Spanish styles, like the Post Office building, or are as beautiful and imposing as they are lacking in originality, such as the National Theater of Mexico City, not yet finished, where the best architectural and sculptural talent have concurred, and the project of the Legislative Palace, never fully carried out.

Mexican architecture worth mentioning is either the colonial or the modern building, just as it is found in Paris, in Washington, and in Buenos Aires. Nevertheless, a considerable effort is being made to form with the colonial elements a real national architecture. Leaders of this movement are Federico Mariscal, the author of a book entitled "La Patria y la Arquitectura Nacional," Ribas Mercado, Roberto Álvarez Espinosa, and others.

Mexican sculpture can offer to the world the names of artists like Jesús Contreras, Arnulfo Domínguez, Federico Nava, José Tovar — who delights in putting Mexican life in marble and clay — and others who have won distinction abroad. Still, modern Mexican sculpture has no salient individuality. Although it must be recognized that the statue of Cuauhtémoc, work of the sculptors Miguel Noreña and

¹ Paper read at a special session on Pan American Art, Thirteenth Annual Convention, of the American Federation of Art, Washington, D. C., May 18, 1922.



CUAUHTÉMOC MONUMENT.

National monument to the great indigenous heroes of Mexico, in which Cuauhtémoc is the principal figure, and which occupies a commanding position in the principal promenade of Mexico City: *El Paseo de la Reforma*.

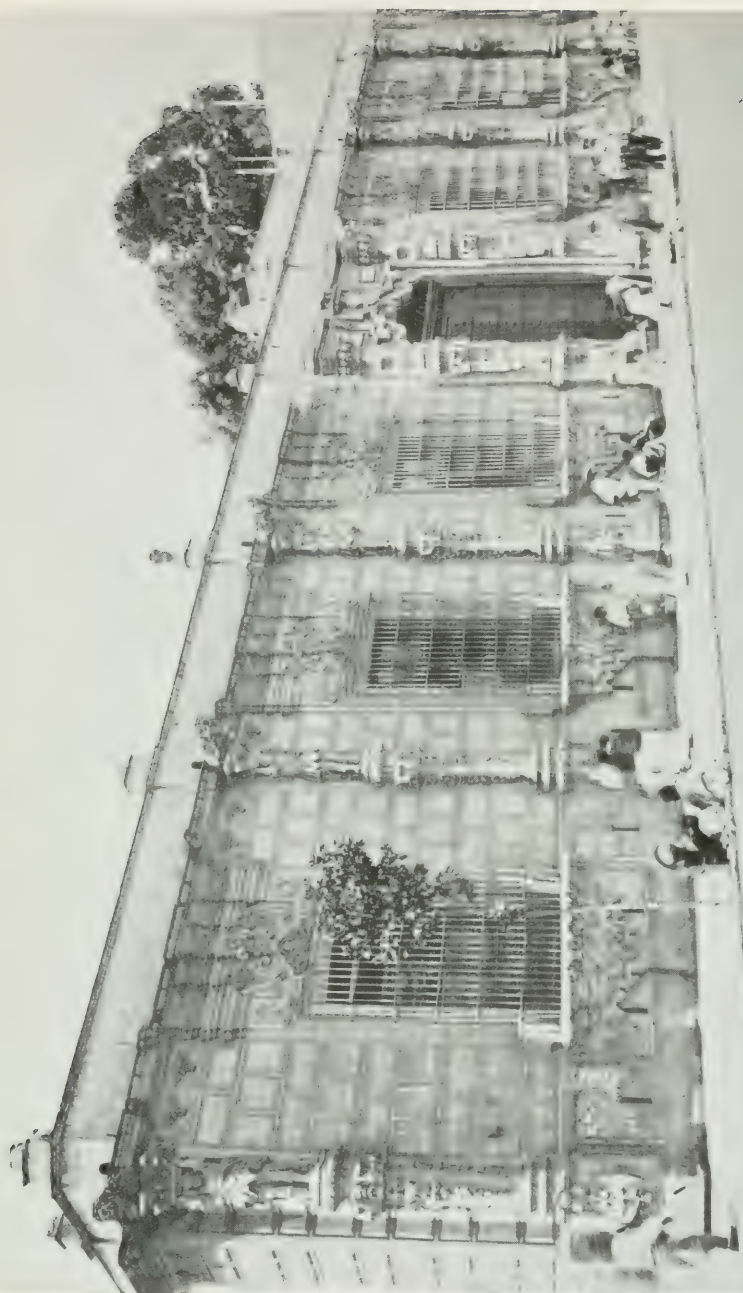
Gabriel Guerra and of the architect Ramón Ajea, is among the most striking statues that can be found on this continent, and that the statue of Charles IV has taken its place among the classics of statuary, these triumphs belong to the past. More recently there was an attempt to perpetuate the Indian type in two statues placed at the entrance of the Paseo de la Reforma. They were so poorly done that later they were taken from there and placed in an out-of-the-way suburb of the city, where they are still derisively called "The Green Indians."

That there are elements which could well be used for the development of these two arts no one can doubt.² The native Indians make clay works which at times reach some degree of perfection. Most tourists who have been in the beautiful town of Guadalajara remember the name of Panurgo, an old Indian who possessed exceptional ability to fashion with clay small busts of notabilities. Some ingenuity is evidenced in the Indian pottery. Undoubtedly, some time, from all these vague and imprecise tendencies, something will result which might be called typically Mexican and be at the same time truly artistic.

The pictorial art has been cultivated in Mexico with greater success than have sculpture and architecture. Mexico has a tradition of great painters, from Rodrigo de Cifuentes, whose existence is not well proved and who is supposed to have come to Mexico 10 years after the Aztec Empire had fallen into the hands of the Spaniards; Alonso Vásquez, who came to New Spain in the sixteenth century; the great Baltasar de Echave, also Spanish—who early in the seventeenth century was considered unrivaled in his art and whose works may be compared with those of Velázquez and Murillo, who were not yet known—together with his wife and children, who also painted; and the four Mexican painters by the name of Juárez, of whom the greatest was Luis, down to Sebastián de Arteaga; Juan de Herrera, called by his contemporaries "the divine"; the Franciscan Diego Berra; and Juan Rodríguez Juárez, who obtained the widest reputation in the colony, and who painted the celebrated St. Gertrude now in the church of St. Augustine in Mexico City.

It is believed that some paintings of Murillo arrived in the seventeenth century and exercised a considerable influence on Mexican art. It is also believed that one of Murillo's sons, also a very

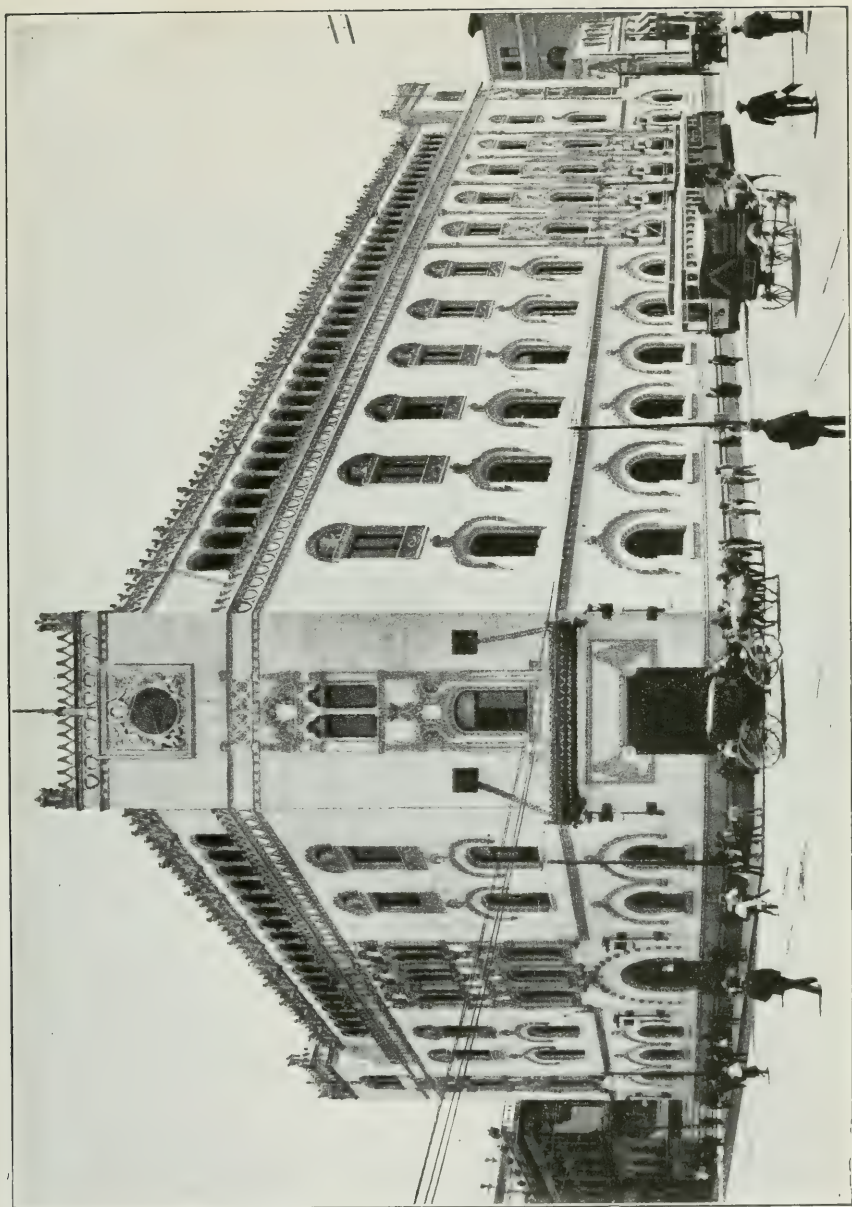
² After reading this paper, the author had occasion to see the remarkable work of Picaseño who, with the greatest ingenuity, has designed decorations and furniture in which he develops motifs taken from the Nahoatl, the Maya and the Mixteco-Zapoteca styles of architecture. The marvelous combination of colors and of precious woods, and the appropriate adaptation of Indian inspiration to modern comfort, make this work worthy of serious study. If there is going to be any original Mexican architecture and decoration, Picaseño is to-day the artist best prepared to give it actual reality. Mr. Picaseño works in the Academia Nacional de Bellas Artes, and I am sure that he will be delighted to show his drawings to any person interested in the subject.



Courtesy of the Bureau of Fine Arts of Mexico.

RESIDENCE OF COUNT DEL VALLE OF ORIZABA, MEXICO CITY.

Since colonial times the capital of the Mexican Republic has been justly called the city of palaces. The fine residences, which in large part date from the eighteenth century, bear witness to the importance which the ancient court of the Aztec emperors attained in the line of the viceroys of New Spain. The cut reproduces the mansion of Count Valle de Orizaba, generally known as "Masarones" (Masks). It is one of the most beautiful examples of Mexican colonial architecture, distinguished for its famous caryatides, the rich adornment of its windows, and the symmetry and beauty of its facade.



MEXICO CITY'S GENERAL POST OFFICE: A FINE EXAMPLE OF MODERN SPANISH ARCHITECTURE.

clever painter, came to Mexico, and some even hold the opinion that some Murillo paintings existing in Mexico are the works of the son and not of the great Bartolomé Esteban. Other painters flourished subsequent to these, the most notable among them being don José Ibarra, some of whose works are at present in the College of San Ildefonso, and his friend, a priest, Cayetano Cabrera, who in all respects surpasses all the painters Mexico has ever produced. He was industrious to the extent of having painted the life of St. Ignatius in 32 oil paintings, all of marked excellency, in 14 months -



PARISH CHURCH, VERA CRUZ.

This church, built in 1721, although of no special architectural beauty, is characteristic of the colonial parish type. The cupola is adorned with tiles, and the tower, of medium height and heavy construction, shows in its cracks the traces of time.

from June 7, 1756, to July 27, 1757. In the year of 1756 he also painted the life of St. Dominic, which exists in the monastery of that order. His fecundity did not impair the beauty of his work, and he alone would be sufficient subject for a book on Mexican painting. Cabrera was one of the founders of the Mexican Academy of Painting.

The nineteenth century gave to the history of Mexican painting the names of Cordero, Pina, Rebull, Flores, and others, now all dead; and at the end of that century and at the beginning of the twentieth century there flourished other artists still living and still producing.

Special mention should be made, among the dead, of Saturnino Herrán, whose drawings and paintings were inspired by the national life and traditions.

The modern Mexican painter, as a rule, after some preparation in Mexico, goes to Europe—either France or Italy—for study. He returns to Mexico a master of technique, in some cases spoiled by the work of copying the old masters, and in some cases in possession of a vigorous individuality, rebellious to the process of submitting to that relative amount of standardization and uniformity which are neces-



THE CRITIC: ETCHING BY JULIO RUELAS IN WHICH THE ARTIST'S HEAD APPEARS.¹

sary to constitute a real artistic school. The school might not exist but art itself is not the loser for it.

The Academy of Painting organizes exhibitions where the Mexican element can be found in the representation of Mexican types and Mexican scenes—Indians dressed in cotton, street peddlers, scenes in

¹ All drawings by Julio Ruelas reproduced from *Revista Moderna*, Mexico.

the bull ring or in the floating gardens of Xochimilco, and the ever present volcanoes. They may be very well painted, but often they might just as well be painted by a Frenchman or an Italian.

Some modern Mexican artists have won a world-wide reputation, as Gerardo Murillo (*Doctor Atl*), perhaps the most nationalist of Mexican painters; Juan Téllez; Alberto Fuster, who a few months ago gave an exhibition of his pictures in Washington before tragically ending his life; Alfredo Ramos Martínez, whose crayon work has given him a distinguished position in the world of art, and who now



AT NIGHT: ETCHING BY JULIO RUELAS.

leads the young artists as director of the National Academy of Fine Arts, a full-fledged lover of art for art's sake; Roberto Montenegro, whose drawings, combining color and fantasy, are highly quoted in European markets; Diego Ribera, who has made for himself a good reputation among the cubists; and the great Julio Ruelas, who may be considered a member of the illustrious artistic family of Albrecht Dürer and Gustave Doré.

Ruelas died young, and he died in Paris, that beautiful mistress whose kiss carries with itself inspiration and death. His art was an art of death. His drawings are the product of a tortured mind

of a sick mind, but of a mind which never missed the true sense of proportion and had at its command the most perfect drawing technique. He made drawings for the *Revista Moderna* of Mexico City, a magazine which at the time of Mexican splendor was a haven of art in which met poets of the pen, pencil and brush, and which left for future ages treasures of inestimable value.



MEDUSA: ETCHING BY JULIO RUELAS.

Perhaps his art is not justly appreciated now, but after the lapse of generations the artistic personality of Julio Ruelas will be placed among the greatest in the world, and may even be considered as the greatest or, at least, the most original of those of the American continent. His portraits, made either with the pen or pencil, of the Mexican poets Salvador Díaz Mirón and Jesús E. Valenzuela, and of Don Francisco de Alba, as well as the face-mask of himself and the won-



A SYMBOLISM: ETCHING BY JULIO RUELAS.

derful etching called "La Crítica," in which appears his own face with a monster perforating his forehead, are evidences of his mastery of the technique of his art. The same mastery added to a touch of mysticism and sinful inclination, in contrast, is shown in his etchings entitled "En la Noche," representing a man of the world at the edge of an abyss with his face turned toward the sweet figure of Christ pointing in the opposite direction; "Medusa," a hand covered with an iron gauntlet seizing the serpents crowning a head the face of which wears a gripping expression of despair; a most beautiful etching of an emaciated woman, half naked, with a child on her lap



ETCHING, BY JULIO RUELAS.

and a dog at her side, and an old man giving her a purse; a fantastic composition representing a woman in front of the crucifix putting a serpent to her bosom while death approaches; a picture of Hope, not as conventionally described, but as it might appear to a man who was facing death and who was consuming his soul in the fire of his own inspiration—a woman lying at the bottom of the sea, her body pierced by one of the points of an anchor and held fast by seaweeds; and in scores and scores of other works of various kinds, all of them possessing a tragic touch, invariably with the presence of death. A satyr kissing a nymph; the beautiful dancer Otero dancing among skulls; a pensive head and a body ending in roots like

serpents whose flesh is torn by thorns; charity represented in the figure of an old man under the wings of an angel, giving a coin to a woman with a child resting against a dog—the child is perhaps dead and charity has come too late; a young man and a young woman reclining under a tree in a perfect ecstasy were it not for the mocking face of a near-by satyr gazing at them with slanting eyes; fantastic castles and centaurs; Judith carrying Holofernes' head, but Judith as a modern woman with silk stockings and uncovered breast, and Holofernes dressed like a bourgeois, although in his eyes there is a light, curse or blessing; a pilgrim, eyes turned to heaven and gazing



CHARITY: AN ETCHING BY JULIO RUELAS.

at a woman who gives him strength to go on, or who perhaps is the memory of a sin which urges him to go back; a pilgrim poet lying by the roadside, covered in his sleep by the black wings of a monster ready to devour him; a man on his back attacked by dogs; another dragged at the heels of a horse; another running away from a monster with a scorpion's body and a woman's face; satyrs riding on unicorns; skeletons of men riding on skeletons of horses; poets reading verses around a table while a monstrous face with eyes like those of a toad envelops them in creeping vines; a dog, wolf, or hyena devouring a corpse close to a man, father or sweetheart, who can not rescue it for he is bound with iron chains; horses running in clouds; monstrous vul-

tures with human skulls for heads—all with a perfection of technique, the expression of a profound grief or of incompleteness of realization, of an aspiration that can never be fulfilled, of happiness that is always marred by some evil influence, and of death over everything, lurking everywhere ready to blight whatever is beautiful and light in life.

The body of Julio Ruelas lies in Paris. His drawings are waiting to be collected by a pious hand, one who will give Ruelas's name to the world to be treasured. Very few have produced in the hearts of men as deep impressions as his drawings make. He is more than a Mexican glory—he is a glory for the American Continent.³

For those who do not believe in artistic propaganda or the standardization of art, except as presented to the masses for educational purposes, but who believe that art is something essentially individual,



A WEIRD SYMBOLISM OF HOPE: ETCHING BY JULIO RUELAS.

and that artists are not supposed to interpret conventionalisms but to express spontaneously and freely what they really feel in the way they feel it and conceive it—and I am most emphatically of that number—the glorification of the personal artist and the encouragement of personal individuality are more important than the establishment of artistic communities with their irresistible tendency to make everything level and standard, work, life, and inspiration. This solidarity may help to sell pictures, but most artists live by themselves, have a leaning toward isolation, and only by concentrating their efforts in the untrammelled production of what lives in their hearts and their minds, as original creations or as interpretations, can they produce works with the imprint of eternity.

In modern times very few men have equaled and perhaps none has surpassed Julio Ruelas in this concentrated personal production.

³ Julio Ruelas died on the 16th of September, 1907. An article written in Spanish on the 15th anniversary of his death will appear later in the Bulletin.

ECONOMIC AND INDUSTRIAL RENAISSANCE OF COLOMBIA¹

By EARL HARDING, C. E.

I ASSUME that I am addressing an audience with an intelligent interest in Pan America; that you know where Colombia is; that you are aware of the general facts which can be gathered from a guidebook; and that your interest can be stimulated not by an elementary travelogue but by an interpretation of the current thought, the plans, and purposes of a neighbor standing at the threshold of an economic and industrial renaissance.

No other country in South America holds to-day the attention which the Republic of Colombia is receiving in the United States. Our geologists, engineers, bankers, and commercial representatives have been surveying the country and its resources, especially since the restoration of the traditional good will between Colombia of the north and Colombia of the south was assured. Representatives of the most responsible elements in North American business have been for the last year or two in the weekly procession of voyagers to Colombia, and with them have gone, too, the inevitable contingents of adventurers who misrepresent what North America stands for, and who make it all the more difficult for the rest.

From our North American point of view this period is vitally important—this period in which we are cultivating new and more intimate and lasting relations with an old friend whose real character and worth we have just begun to realize. We want not only facts but intelligent and sympathetic understanding of the facts on which we are to cement the foundations of our commercial interdependence.

When the Pan American Society asked me to give its Colombian lecture I felt as the bootblack who is asked to change a \$100 bill—highly complimented, but inadequate. In an effort to supply the deficiency I asked Mr. Carson to postpone the talk while I went to Colombia and endeavored to ascertain what is taking place there. While my contacts have been fairly close and continuous, I had not been in Colombia since 1909, and I found this absence furnished

¹ Delivered before the Pan American Society of the United States in the auditorium of the United Engineering Societies Building, New York, May 25, 1922.

me a better basis for comparison and valuation than I believe would be possible if I had been a resident or a recurrent visitor. I shall endeavor to give you these impressions rather than hand-book data.

Colombia is a giant about to burst its bonds. You doubtless know that lack of transportation has been and is the fetter holding in leash this country of marvelous richness—this undeveloped domain as great in area as all of the United States east of Ohio, from Maine to Florida; the greatest producer of gold in South America; the source of the world's supply of platinum outside of Russia; for years the largest producer of emeralds; first in quality of its coffee and second only to Brazil in quantity; possessing boundless opportunities for cattle raising; growing and spinning much of its own cotton and wool and coarser fibres, as well as nurturing an infant silk industry; rich in iron, coal, petroleum, and other minerals, and richer still in the potentialities of its 6,000,000 people, of whom the great majority live in a temperate mountain climate. What a pity that such a country and such a people should have remained so long unknown to us.

We face the fact every day in business that Colombia is still a *terra incognita* to the vast majority of our people, just as the real United States is little known or understood by the people of Latin America. We need to cultivate more travel—but not by the typical tourist who goes to growl and criticize. For the man who loves the adventure of the unbeaten path and who has sympathy for ideas and customs that his grandparents did not originate, Colombia is a field of surpassing interest. Europe affords few spots more picturesque than the walled city of Cartagena, rich in the traditions of conquistadores and pirates. One could spend a week wandering in the tunnels and catacombs of the old walls and fortresses, reveling in the lore of this ancient capital of Spanish America, still Spanish in flavor and aspect. The landlocked harbor of Cartagena is capable of easy development into one of the finest harbors in South America.

Barranquilla, the second seaport which the traveler visits on the journey from the United States, presents an entirely different aspect. Barranquilla has many of the faults and at the same time many of the attractions of youth—a young commercial city, built on the banks of the Magdalena after the development of steamboat traffic made necessary a center of trade at the mouth of the river. Barranquilla's population, now 80,000, having doubled in 10 years, is gathered from all parts of the world and from the interior of the country. Its business men realize that the city has possibilities for becoming another New Orleans on the opposite side of the Caribbean. They set themselves to realizing this dream by organizing a corporation to dredge the mouth of the Magdalena River and bring

deep-sea shipping up to the city. Toward this project \$1,000,000 was subscribed by the citizens of Barranquilla within one week. Surveys were made by German engineers before the war. Later the engineering firm of Black, McKenney & Stewart of Washington was called in to resurvey and present new plans. Skeptical as to which engineers' ideas were the better, the Colombians went to London to consult British expert opinion, which decided that the American plans were far superior, and the work of opening the Magdalena River is about to be carried out under American supervision and with American financing, costing about \$5,500,000.

The engineering problem is interesting but not necessarily a complicated one. A photograph, taken from an aeroplane by the engineers, shows the ocean currents driven from the east by the trade winds which arrest the flow of the Magdalena at its mouth and cause the tremendous volume of silt to accumulate at the bar. The plans of the engineers show the jetties set at such an angle as to turn the ocean currents parallel to the flow of the river, so that the ocean will aid rather than arrest the river currents in carrying the silt out to sea.

The future of Barranquilla as a commercial city must be apparent from the briefest survey of its strategic position; the city is admirably situated for natural drainage and expansion; it commands the mouth of a river as important as the Mississippi, navigable most of the distance for 1,000 miles, draining an area comparable in richness to the Mississippi Valley, but walled in by mountain ranges which compel transportation to follow down the valley to the river's mouth rather than to pass east and west as does the commerce of the United States. Through the port of Barranquilla passes approximately 60 per cent of the nation's entire foreign commerce and 80 per cent of the commerce coming by way of the Atlantic ports, which include Cartagena, Barranquilla, Santa Marta, and the lesser ports to the east.

With the opening of the mouth of the Magdalena River the city of Barranquilla will be remodeling and extending its water system, tramway, market, and other public utilities, which it has built—on an entire inadequate scale, it is true—from its own resources while keeping absolutely free of municipal debt. The city of Cartagena is making also surveys for similar public improvements which will be undertaken as soon as that municipality can reorganize its finances and provide the necessary revenues. Neither of these coast cities possesses the modern improvements which the tourist might expect. It is only by comparison with what they were a few years ago and by knowing what efforts are being made for improvement that the casual observer can appraise with fairness what these cities really are.

The Magdalena River, with its flat-bottom Mississippi River type of steamboat, has long been the discouraging barrier to all but the adventurous or determined traveler. I have found the Magdalena much better than its reputation. In the "de luxe" cabins of the most modern river boats, screened, electric lighted, provided with fans and running water, it is now possible to travel with reasonable comfort. The greatest improvements have been made by the native companies, especially the boats of the Lopez family, operated in competition with the less progressive corporation which has the advantage of the Government mail-carrying contract.

The traveler whose destination is Medellín, the city second in size and in some respect first in commercial importance, leaves his boat at Puerto Berrio, spends the night in the Hotel Magdalena, an attractive concrete building, erected and operated by the Antioquia State Railroad. Puerto Berrio is a gateway to a world within a world, for Antioquia is a part of Colombia distinct in race, traditions, and characteristics. Of Basque origin, the Antioquians, coming originally as seekers of gold, found themselves isolated in mountain fastness where they had to work out their own salvation. Some tradition attributes to the Antioquian stock a strong Jewish strain, but the predominant Basque names contradict this theory, for there were few or no Jews in the north of Spain. The Antioquians, however, do not resent the story of their semitic origin, but laugh and say: "We pride ourselves that we are good business men, and if that comes from Jewish blood, we are glad that we are good business men."

The Antioquian, whether he is a millionaire banker or the smallest shopkeeper, is found at his desk at 7 o'clock in the morning, or *earlier*. Enjoying a mountain climate of perpetual spring, he is a prodigious worker, and like the residents in all countries where labor must make up for the stinginess of nature the Antioquian is thrifty to the last penny. He is essentially a home lover; family ties and traditions dominate his social life. Families of 10 or 12 children are usual; 20 are not extraordinary, and one family boasts of 33 children from one marriage. If these characteristics of the Antioquians had been known before 1903 to a certain enemy of race suicide, the history of our relations with Colombia might have been very different.

These Basque miners have multiplied and spread themselves over the surrounding country, populating the entire State of Caldas and the city of Manizales, which is only 60 years old, and the mountain fastness of the San Jorge, which in the last 20 years has been transformed into one of the richest cattle-raising regions. In every business center of the Republic one finds some Antioquians who are leavening the commercial spirit of the place, raising its respect for hard labor and thrift, and setting examples for advancing the public welfare. There are more than 20 committees of leading men and

women appointed by the governor and legislature of the Department of Antioquía cooperating without compensation with the departmental officials in working out various problems of public administration.

The Antioquía State Railroad, built with indescribable sacrifice little by little as the Department's meager savings permitted, is one of the best built, best managed, and most economically administered railroads in the world. When this opinion was first expressed to me by an American engineer whose judgment I could not question, I thought he must be temporarily affected by the heat, until I saw for myself rolling stock and roadbed in better condition than one would find on almost any railroad in the United States; stations cleaner and more orderly than we have at home, surrounded by flower gardens kept by station masters whose pride is excited by an annual prize competition for the best kept station grounds. With our own opinions concerning Government operation of railroads, I know it is difficult for us to believe that politics has been kept out of the administration of the Antioquía Railroad; it is operated by a board of directors consisting of the governor and the secretary of finance of the Department, a superintendent who is a civil engineer appointed by the governor, and three business men elected irrespective of their politics by the departmental legislature. This board of directors has reelected year after year to the position of chief engineer, German Uribe, who has been the guiding spirit of the enterprise since he was graduated from Troy Polytechnic 19 years ago. No political dignitary in Colombia has enough "pull" to hold a regular train on the Antioquía Railroad; he will be given a special car and locomotive if circumstances justify, but the regular trains go on time.

In many other respects Antioquía would stand out in any part of the world as an example of a high civilization. The Society for Public Betterment in Medellín selects from each party's list of candidates the men best equipped for public service; the only difference between its operation and that of some of our civic societies in New York seems to be that the Society for Public Betterment in Medellín can elect the candidates whom it supports. Eighty per cent of the factory workers of Medellín can read and write. The city has made a financial success of the construction and operation of its electric tramway and other utilities. It supports a university, a national school of mines and an agriculture college, and is completing a hospital which will serve a city twice its size, intending to make it a center for the treatment of surgical and pathological cases which are now taken from all parts of Colombia to the nearest modern hospital at Panama. Our most modern ideas of penology have been adapted to the Antioquía prison farm, established by Governor—now President—Ospina in a beautiful spot in the San Jorge Valley.

The national capital is another distinct world. Social rather than commercial in its atmosphere, more or less rapt up in politics, the winter home of the wealthy who congregate there from many parts of the country, and long celebrated as the Athens of South America, justly proud of its culture, its literature, its art and music, Bogotá presents to the foreigner who may be so fortunate as to be admitted within its inner circles a charm which only a national capital can possess. But politics is becoming less and less the breath of life throughout Colombia and this is so even in Bogotá.

"Have we made any progress? What is the greatest change you notice in your 13 years' absence?" were questions asked me repeatedly. Noteworthy as the physical changes have been, I say unhesitatingly that the outstanding difference between Colombia of to-day and Colombia of the year 1909 is the revolution wrought in the spirit of the country. Sunshine and fresh air let into a musty house work no greater magic than courage, confidence, and mutual trust have wrought in Colombia. The spirit of association and co-operation has taken a firm hold of those people. Where Liberals and Conservatives could not be on social terms 15 years ago, they are to-day partners in business and intermarried; where 10 years ago many of the wealthy families invested their surplus incomes abroad, without a discoverable exception they take pride now in using every surplus peso in developing home industries. New cotton and woolen mills, tanneries, soap, perfume, and match factories, employing from a few thousand to a half million dollars each, are among the industries which have been made possible in the last few years by this spirit of cooperation. The new Colombia Woolen Mills, in Bogotá, with some \$400,000 native capital invested, have been in operation eight months and expect to earn 40 per cent. With one smaller mill in Bogotá, it spins and weaves the entire available supply of native wool, and while encouraging expansion of local sheep raising it is importing part of its yarn from the United States. Pure wool overcoatings and suitings comparing favorably with the imported cloth are sold for \$6 a meter, with which price the imported article can not compete. Local demand would permit the mill to double its capacity of 1,500 yards per day of blankets and suitings. What is lacking is available local capital. Bank credit costs 12 per cent, the rate having been reduced recently from 15.

On every hand I found evidence of the quickening social consciousness of the country. An effective national Red Cross unit was organized recently in Bogotá. There are 32 separate organizations, nearly all the product of the last 10 years, working for betterment of children in Bogotá. Corporations and banks in Bogotá, and to a considerable extent in other centers, set aside from 1 to 2 per cent of their earnings for charities. Doctor Montoya, a Colombian

graduated from Harvard Medical School in 1897, carries on the ideals of Doctor Barberri, a famous Bogotá surgeon, who founded the Children's Hospital. Four hundred thousand dollars in legacies and endowments have been collected during 20 years of campaigning by a few heroic spirits in Bogotá's medical profession, who, at last, are opening 400 beds as one-half of the new San Jose Hospital. Incomplete vital statistics show steady increase of tuberculosis in Bogotá due to poor housing and malnutrition. A national anti-tuberculosis league was authorized by Congress and \$30,000 appropriated toward the first tuberculosis hospital.

A special inheritance tax was levied to combat leprosy; the director of the leprosy hospital service is in touch with the world's scientific centers and leprosy cures are being effected in Colombia's three leprosy hospitals. Decrees of the national department of health have the effect of laws; Congress shows a disposition to give science its fullest support in enacting hygienic legislation, even though the machinery for its enforcement can not be provided at once. The work of Dr. Pablo Garcia Medina, as national director of hygiene, has so distinguished him that he has been made an honorary officer of the Pan American Health Society. An active campaign against the hookworm scourge is being conducted under the direction of experts furnished by the Rockefeller Foundation. The director told me that in no country has the foundation received more generous cooperation and support from the Government. Two Bogotá doctors, Samper and Martinez, graduates of Harvard, have invested \$150,000 of their family fortunes in a modern laboratory of hygiene, still financially a losing venture, where they are manufacturing a wide range of serums and vaccines for animal and human prophylaxis. They employ as head of their veterinary clinic and school an American graduated from Cornell University, New York. The patriotic heads of this institution told me that it was made possible because of the spirit of the American medical profession. "We found the doors of scientific research in Europe in many cases barred to foreigners," said Doctor Martinez to me; "we then went to the United States and every door opened when we came to organize this work. We received much assistance from your splendid Department of Agriculture. We are glad to be called pro-American."

Hand in hand with the struggle for social betterment goes progress in education. Efforts of the church, which is the dominant factor still in all education, are naturally stimulated by the noteworthy work of individuals who are concentrating their money and efforts in maintenance of a few private schools. Chief among these is the *Gymnasio Moderno* in Bogotá, founded mainly through the efforts of Agustin Nieto Caballero, a graduate of Yonkers High School and Columbia University in New York before he studied law and educa-

tion in Paris. Returning to Colombia in his early twenties with a zeal for educational betterment, this young man induced nine friends to join him in subscribing \$100,000 for the foundation of a nonsectarian modern school. From the Montessori babies up to college entrance, the *Gymnasio Moderno* aims to follow the most advanced methods of Europe and America. Teachers and equipment have been brought from abroad. The founders of the school have donated their controlling stock to the corporation, and are laying the foundations for future democratic control by selecting from each graduating class one or more of the most public-spirited and promising youths to be an elector, and to this body of electors they will eventually turn over the management. Jose M. Samper, one of the directors, has contributed \$135,000 to the school's endowment; Agustin Nieto Caballero has given \$50,000 and practically all of his time for eight years. This young man, brought up to luxury, leads student parties on two months' hikes over the country, one trip taking them as far as the Pacific port of Buenaventura, to study at first hand the problems of agriculture, transportation, and local government. In a country where there are no large fortunes—such as we call large—the wealthy are giving “until it hurts,” both in money and effort, toward the public betterment. The *Gymnasio Moderno* is only one outstanding example of the leaven that is working in the social and political life of Colombia.

The status of women is another impressive indication of the trend of the country's thought. Ten years ago it was not considered proper for a woman to go into the streets alone, and in 1909 there was not a woman employed in business; now there are hundreds in the shops and offices in all the cities; they have gained admittance to the national conservatory of music, to the school of dentistry, and to all the normal and commercial colleges; women of the best families are seen shopping without chaperon or maid in Bogotá. Tennis has been taken up enthusiastically by the women of Barranquilla. While women's public activities are still confined mainly to charities and public betterment, some are beginning to take a hand in politics, and others are following the example of foreign women who engage in business because it is interesting. One Colombian woman, educated in Chicago, is a successful practicing physician in Bogotá. Her husband is a civil engineer. Two sisters of a family of good social position in Bogotá are the pioneer business women of the capital—one a commission merchant representing several important American manufacturers, the other is proprietor of a clothes shop employing 21 assistants, including one man tailor. Even the coming of the first American traveling saleswoman to Bogotá during my recent sojourn there attracted only the most friendly reception. This American saleswoman, representing a large St. Louis stationery

and engraving house, was good to look at, modest, and confident of herself, whether she was being received by a shopkeeper or by the President of the Republic. She told me, when I had the pleasure of bringing her together at tea with the two Bogotá women merchants, that not once had she received anything but courteous and considerate treatment in either Government offices or private business establishments. I was told the other day by one of her competitors that she won the Government's stamped paper contract which had been for years in the hands of another American engraver. You who are familiar with the attitude of some other Latin American capitals toward women, native and foreign, need no interpretation of this incident as an indication of the truly cultured character of the isolated capital of Colombia.

Bogotá can well be proud of its beautiful and brilliant women. One of the loveliest of them we have had the good fortune to add to our diplomatic life in Washington, the Señora de Olaya, wife of the new Colombian Minister. Another typical Colombian woman is Mme. Coronado, of Bogotá, for several years resident of Washington, and last month one of the leaders in the Pan American Women's Conference in Baltimore.

Such women as these give indescribable charm to the social life of Colombia. While the movies have taken hold of the public and Bogotá has even inaugurated its own "Luna Park," there is still a fortunate dearth of so-called "amusements" to destroy the Colombian's social instincts. To one so fortunate as to be taken into the hearts and homes of Bogotá it is a continuing round of teas, dinners, and dances—not in cabarets, but in homes where the family life still means what it did in our old South. In contrast with the hard-working, early-rising Antioquian the fashionable Bogotano attends a sumptuous tea lasting from 6 to 8 o'clock; formal dinners begin usually at 9, and the opera at 9.30, lasting until 1 or 1.30 a. m. Bogotá supported the Brecafe Italian Grand Opera Co. during February and March—a company that is popular in the larger South American cities—and five violinists from the Colombian National Orchestra were taken away by the Italian visitors. Two months of opera were followed this spring by three weeks of concert by the noted Spanish pianist, Maria Carreras. Dancing is not likely to stop before 2 or 3 in the morning. Dinner tables are loaded with flowers. Carnation culture is one of the hobbies; I have seen Bogotá double carnations 4 inches in diameter, and the kind Fifth Avenue sells for \$3 a dozen the Bogotá flower women are glad to vend for 15 cents. Roses grow in the chilly climate of Bogotá plateau as profusely as in California, and I have paid \$5 a dozen in Bogotá for lavender orchids more beautiful than Fifth Avenue is selling now at \$4 each.

The Jockey Club and the Gun Club in Bogotá, the A. B. C. in Barranquilla, and the Union Club in Medellín would be a credit to any of our American cities. Golf, polo, and tennis are the favorite games at the Bogotá Country Club.

I have endeavored to sketch very briefly some outstanding indications of the social and industrial trend of present-day Colombia. The faultfinding tourist or the misplaced commercial representative temperamentally unfitted to adjust himself to foreign environment will find plenty to criticize in Colombia—or in the United States, or in heaven. He will find what he looks for—bad or good. When the foreigner judges us by the poverty and filth of our slums and not by the spirit with which we as a people are attacking our social problems, we resent it, do we not? I do not mean that we should fail to see our neighbor's shortcomings, but this I believe: The most costly blunder American business makes is in sending abroad representatives whose social maladroitness bars them from being taken behind the scenes into the intimate life of a foreign country. I heard two newly arrived financial representatives from the United States talk for 20 minutes with their Colombian host at a hotel table where he was ordering their food because they could not speak a word of Spanish. During that time they expressed nothing but condemnation and criticism; they never saw a country so dirty, so hot at the coast, so uncomfortably cold in the mountains; they never had been so disgusted in the Far East nor in Europe, where both purported to have gathered wide experience. All they could say was that Colombia possessed marvelous natural resources—a fact which any wayfaring fool can not help but discover.

A cultured Colombian gentleman, educated in England and the United States, remarked to me: "I often wonder why so many foreigners fail to understand that we are not blind to our own shortcomings. If they looked far enough to comprehend what stupendous obstacles we have overcome and to appreciate what we are doing to bring ourselves abreast the progress of the outside world, they might spend less time in criticism and more to constructive help. We need the aid of foreign capital, foreign ideas and foreigners who can work in a tolerant and helpful spirit to implant those ideas in our country. Those who see the good in us gain the right to advise us of our faults; but those who can see only our shortcomings forfeit their usefulness to us and to themselves. That we lack transportation and many other public utilities spells opportunity to the foreigner. If we had all these things, he would not be flocking here to show us how to finance ourselves so that we can obtain them with profit to himself."

Colombia has had several disastrous experiences with foreign railroad contractors, and has found Government construction more cer-

tain and economical. The National Government owns and operates the Pacific Railroad from Buenaventura, which is to be extended up and down the Cauca Valley to Popayán and Cartago, with a branch over the Central Cordillera to Ibagué, giving a through service from Bogotá to the Pacific. The Department of Antioquía is now negotiating in the market for \$15,000,000 with which to complete its State railroad down the Cauca Valley to deep water at Cáceres or Canafistula; from Cáceres it may be extended later to Antioquía's own harbor on the Gulf of Urabo or join a railroad which the neighboring Department may be able to finance from Cartagena through the rich plains of Bolívar up the San Jorge Valley to Cáceres. The Department of Caldas also is looking for a loan with which to extend its railroad from Cartago, on the Cauca, to the State capital, Manizales, which now sends its freight 71 kilometers by serial tram to the Magdalena at Mariquita.

These Cauca Valley roads would provide adequate outlet for about one-third of the country's inhabitants west of the Central Cordillera.

East of the Magdalena is the other thickly populated section of the country, also crying for transportation to deep water on the Magdalena. The Department of Boyacá has 800,000 inhabitants and not a kilometer of railroad. Coffee originating at Velez is carried up the mountain muleback to the end of the Northern Railroad at Nemocón, transshipped at Bogotá, at Facatativá, at Girardot, at Ambelema, at Ladorada, and finally after traveling 500 kilometers passes down the Magdalena not more than 100 kilometers from its point of origin. Sugar produced in primitive mills at Sogomoso pays 5 cents a pound mule freight to Bogotá. These are only typical examples of existing transportation costs.

A Belgian syndicate has just signed a contract to finance the Northeastern Railroad from Bogotá toward the lower Magdalena, passing through a country rich in agriculture, coal, iron and other minerals. The other most necessary extensions are of the Northern, down the River Cacare to a junction with the Antioquía at Puerto Berrio, and a line to link the rich region around Cucuta with the Magdalena River.

The Tolima Railroad is being extended slowly, as funds will permit, toward Neiva, on the upper Magdalena. Operating costs of construction trains are being paid from revenue from local passenger traffic, so thickly in the territory populated.

There are various other transportation projects, but I have included in this brief summary only those which seem to be of first and immediate importance.

Airplane transport, which has been in successful operation for nearly a year, has given the interior a first taste of what railroads will do for the country. Colombian and German capital put on five

"Junker" hydroavians which furnish weekly mail service between Barranquilla and river points as far as Neiva. The 8-day river and rail trip from the coast to Girardot is made with mail and passengers in 8 hours. Service has been regular and without accident. Service has been installed recently between Barranquilla and Cartagena and points on the Sinu River, and another line will be put on to Cali, up the Cauca.

Colombia's foreign trade has doubled in 10 years. Coffee doubtless will continue to be the country's money crop. When the American public shall be educated to recognize the superiority of mild coffee, it will demand a pure Colombian instead of the blends in which our roasters naturally use as little Colombian as they can to improve the flavor of the cheaper Brazilian coffee.

Cattle, rather than petroleum, will be the backbone of the country's prosperity. As one of Colombia's most famous men remarked recently, "Anyone can be a cattleman with two cows; he must have a few million dollars to be an oilman." The International Products Co., with the cooperation of Colombian capitalists, is completing the first modern American packing house at Covenas, on the Caribbean coast south of Cartagena, near the mouth of the Sinu River. Cattle from the lowlands are a chunky beef type weighing about 1,000 pounds on the hoof and dressing about as large a proportion of beef as our cattle of the same size. The Cebu, or East Indian cattle, have been imported into the Cauca Valley and are being crossed successfully with natives. In the Bogotá highlands there are a few pure-bred herds of Herefords, Devons, Durhams, Shorthorns, and Red Polls; even the native stock in the highlands can be fattened on rich pastures to dress up to 1,200 pounds. Some pure-bred stock around Bogotá will produce up to 2,000 pounds of beef. Dressed beef sells in Bogotá wholesale at 6 to 12 cents a pound. Doctor Noback, the Cornell veterinarian in Bogotá, expressed to me the opinion that Colombia's lands are better adapted to cattle than any in South America excepting possibly Brazil's and certainly better than Argentina's. Tremendous fertile plains admirably suited for cattle are inaccessible east of Bogotá. The lower valleys of Antioquia and the plains of Bolivar and Magdalena must furnish most of the cattle Colombia can export until her transportation problem is solved.

The lack of transportation is also proving the obstacle to rapid development of the petroleum industry. A map, as plotted by Mr. Richard Mayer, shows the extent of the locations made by the many American and British petroleum companies during the last few years. The continuous lines of seepages from Neiva, on the upper Magdalena, to the head of Lake Maracaibo, in Venezuela, extend some 500 miles. Many geologists say that it is the most promising undeveloped field known to-day, but nobody is predicting whether oil will be found

there or in the coastal field along the Caribbean in large quantities. Standard Oil through various subsidiaries has taken the lead in development. Its investment through the Tropical Oil Co. is said to represent already \$7,000,000 in the three producing wells and the three now drilling at Las Infantas, a pipe line and railroad 25 miles to the refinery at Barrancabermeja, 400 miles up the Magdalena River; its river tankers, etc. While Standard Oil's operating plans are never made public, it seems evident that any thought of building a pipe line immediately to the coast has been laid aside until the potential production of the country shall have been proved. The Tropical was just beginning to market its gasoline and crude oil for domestic consumption when I left Colombia last month. Preparations have been made to replace wood fuel with crude oil in the Lopez River boats, following experiments which demonstrated tremendous labor and timesaving economies. The British shipping interests are expected to follow the enterprising example of their native competitors.

Besides the six wells of the Standard at Las Infantas a drilling agreement with the Transcontinental Oil Co. gives the Standard through its California company control of most of the other seriously active drilling operations in the country—two wells near Carmen, in the Department of Bolivar near the Caribbean coast, one of which is just reported brought into production and one drilling at Guataqui, near Girardot in the upper Magdalena Valley. The Gulf Oil Corporation is drilling near San Andres in the Sinu district.

There is a disposition on the part of many, perhaps most, of the oil companies to await an expected revision of the petroleum law enacted in December, 1919. Much to the disadvantage of the industry and of Colombia itself, oil promoters engaged in the inevitable mad competition for lands until royalties and rentals were bid up to prohibitive prices before the general collapse of business in 1920. It is apparent that a general readjustment will be effected before the industry in Colombia will come into full development. Unquestionably public opinion in Colombia is in favor of making any adjustments in legislation which may be proved by impartial authority necessary and equitable. It is likely that such legislation will be presented to the coming regular session of Congress, meeting in August.

Colombia is no longer content to live exclusively in a proud isolation of literary and social culture. Congress is working now on a revision of the nation's obsolete commercial code; business men are making the chambers of commerce live and useful organizations and are taking up the responsibilities of politics. Two of the leading bankers of Bogotá are members of the National House of Representatives. One of them, Miguel Lopez, educated as were his brothers in the

United States and in Europe, told me he received his first inspiration to public service from an address on duties of citizenship delivered in New York by Prof. Jeremiah Jenks. Miguel Lopez is giving fully half of his time to Congress and to his duties as the new president of the Bogotá Chamber of Commerce.

Congress has been working for three months on legislation for the establishment of a national bank of emission and rediscount, details of which are still incomplete. Part of the \$25,000,000 indemnity from the United States, of which the first \$5,000,000 installment has been appropriated but not yet paid by Washington, may be used to help capitalize the proposed bank, if established. It is proposed that half of the capital shall be subscribed by the banks of the country.

Serious and continuous efforts are being made to reduce expenditures and balance the national budget, which for 1922 is estimated: Total revenues, \$23,624,580; total expenditures, \$24,760,942. The total external debt amounts to \$17,485,650 and the internal floating and funded debt to \$27,200,000, a total of \$44,685,650, or a little more than \$7 per capita.

Colombia is coming to the world's money markets for loans, mainly to realize the national ambition to obtain transportation outlets for its pent-up riches. As a field for the investment of American capital and as a potential market for American products Colombia is attracting a great deal of interest. The lenders of money and the sellers of merchandise ask the inevitable question, "What is the character and financial position of the prospective borrower?"

We can not close our eyes to the country's early financial record, which, like that of many other nations, was far from satisfactory. But no opinion would be just that did not take into account the fact that Colombia ranks with Chile only in devotion to constitutional government. There was much alarm among some of our American friends when the Associated Press published last autumn a dispatch from Buenos Aires stating that *La Prensa's*, Quito (Ecuador) correspondent reported that the Bogotá Government had been overthrown by revolution, and that President Suarez, the Archbishop, and Gen. Pedro Nel Ospina had been put in jail.

Here is the prison to which General Ospina was then headed—the presidential palace.

Briefly stated, here is what happened: Public opinion in Colombia is so effective that a combination of leaders in both parties was able to force into voluntary retirement, under fire of criticism, a president whose administration had brought financial disaster, although no specific charges of malfeasance were made. The cabinet was forced to resign with the President, and an entirely peaceful reorganization

was effected to carry the Government over to the next elected administration.

An extremely bitter presidential campaign followed, with some irresponsible talk of violence, and then on February 12 a generally peaceful election. The night before election there were rival mass meetings in the two plazas in Barranquilla where a crowd of more than 10,000 was stirred to fever heat by the Liberal orators. Some foreigners unaccustomed to such intense political feeling feared there would be a tragedy. But the excitement was all ended when the last speaker admonished the shouting mob to go home quietly and avoid the other plaza because of the danger of starting a fight with the equally excited Conservatives. They did so. Would an East Side New York crowd show as much discipline? Aside from a very few instances of individual fights and one serious riot in a small town, the presidential election was more peaceful than a national election in the United States. I doubt whether in any country could be found a finer example of keen interest in public affairs, intense partisanship, and orderly acceptance of the result of an election. And this was in spite of a general belief among the opposition that the party in power had resorted to our old-time practice of seeing to it that the ballot boxes contained the necessary votes.

But in two months all of the political excitement was forgotten and the entire country turned its attention to the problems of business. Politics is no longer the meat and drink and diversion of Colombia. When men are busy organizing and developing new industries they have less time for political rancor. Corporation stockholders' and directors' meetings have played an important part in softening the hard lines which formerly divided the country into partisan groups.

Cities are reorganizing their administrations and studying modern taxation because they have discovered that unless they apply more direct taxation they can not finance the public improvement which they are bent on making. Bogotá, for example, has raised its local credit from 30 per cent discount to par in the first three months of a new business men's administration which dismissed one-third of the city's employees, consolidated various tax-collecting offices under one hand, and collected revenues overlooked for years.

In the limits of one evening I can tell you of only a few of the more pronounced indications of the great social, industrial, and political awakening that has taken hold of Colombia in the last few years. I do not mean to convey the impression that the transformation of the country is complete; it has only started. The important fact is that the will to do is there. The people of Colombia are determined to develop a transportation system and to reform their banking and commercial laws. The \$25,000,000 indemnity will be used as the basis of the nation's future credit; whether part will be employed in

the capital of a reserve bank or all be used as the security for national loans is a detail still undetermined. But for the American who will be offered Colombian bonds as an investment, it is important to know that the country is setting its house in order.

Colombia has achieved a high degree of political liberty. Life and property are well protected by law—the legislative functions of government are performed as well as we expect then in a Republic. The executive and judicial departments have lacked organization. What the country needs—and what it is determined to get—is business administration of its government. The Departments of Antioquía and Caldas have set an example of efficient administration which the rest of the country is ready to follow.

Colombia has elected a business man as President. He is one of those hard-working Antioquians. You find him at his temporary office in New York City at 7.30 or 8 a. m. He did the four years' mining course in the engineering school of the University of California in two years, and earned part of his expenses at the same time. He has made his own fortune in cattle raising, mining, and agriculture and found time to serve his country as minister to the United States and to Belgium, as senator, as governor, and on August 7 he commenced the most active and useful years of his strenuous life. With the tact, perseverance, and courage which have characterized his private life and official life, and with the cooperation which he will receive from the best business elements of the nation, Gen. Pedro Nel Ospina will bring to Colombia substantial realization of its aspirations for progress, and with four years of such administration there will be very little time or incentive to return to a politicians' government.



NOTES ON PERUVIAN FRUITS

By WILSON POPENOE,

Agricultural Explorer, United States Department of Agriculture.

PERUVIANS have not yet learned to consume fruit to the same extent as the peoples of European and North American countries; in fact, Latin Americans in general look upon it as a delicacy and frequently as something of a luxury, to be eaten as a dessert and not as an important part of the meal. On the other hand, the North American of to-day considers, and rightly so, that fruit is capable of forming a large and wholesome part of his diet. The consumption of fruits in Peru—fresh, dried, and canned—can surely be increased, and to this end the first step will be the planting and producing of better grades, for it is true in Peru as in the other Latin American Republics generally that the local varieties of nearly all fruits are inferior in character. This is due to the fact that they have been propagated in most cases by seed only, and it is well known to horticulturists that the tree fruits when grown by this means tend to degenerate. The importation of good varieties of such species as the apple, peach, and pear, and the propagation of these by means of grafting, will be required to make fruit culture in Peru profitable and capable of greater extension. Practically the only fruits which do not fall within this category are the pineapple and the banana. Both of these are propagated by “suckers,” and consequently the best varieties are uniformly reproduced, even where no care is given to the matter of propagation.

There are many sections of the inter-Andean region where the apple can be grown successfully. The Urubamba Valley near Cuzco is one of the most important and best known. For local consumption, as fresh and dried fruit, the production of apples could doubtless be increased enormously. The best varieties from Europe and the United States should be introduced and planted experimentally in order to determine which ones are adapted to Peruvian conditions. Most of the apples now grown in Peru are of inferior quality.

The peach succeeds in somewhat warmer locations than the apple, and may be cultivated both in the sierra and in some of the coastal valleys. It is abundantly found in many parts of the country, but nowhere is its cultivation carried on systematically by modern



Photograph by Wilson Popenoe.

THE VALLEY OF THE RIO URUBAMBA AT PISAC, PERU.

In such Andean valleys as this many of the temperate fruits can be produced to perfection. Because of the elevation (here nearly 9,000 feet) the climate is relatively cool; it is also quite dry, which favors the development of high-grade fruit. Back of the village, on the face of the mountain, can be seen the "steep-side farms of the ancients," some of the agricultural terraces built by the Incas.



THE PALTA, OR AVOCADO.

This valuable food fruit, now receiving attention in the United States, can be grown throughout the coastal region of Peru and in the warmer valleys of the Sierra.

methods. Most of the varieties now grown are seedlings of inferior character, and it will be desirable to introduce the best horticultural varieties from other countries for planting commercially. There will probably be an outlet for a large quantity of fruit in the manufacture of jams and preserves, which are not now prepared in Peru on a commercial scale.



Photograph by Wilson Popenoe.

A CLUMP OF DATE PALMS NEAR PISCO, PERU.

In the desert region between Pisco and Ica, Peru, there are several thousand seedling date palms. Although given no cultural attention whatever, many of these produce good fruit. It is not rare to see dates from Pisco on sale in the markets of Lima and other cities of the coast.

The Urubamba Valley is famous for its pears, but these are for the main part varieties introduced in colonial days and are not equal to those obtainable at present in Europe and the United States. There are small orchards of this tree in the sierra region, and its cultivation could doubtless be extended to advantage.

The plum, like the pear, is grown in the sierra region, where it is highly successful. There are, however, no large plantations as yet.

The fruit is not so easy to ship as the apple and peach, and it will perhaps be less desirable, therefore, as a commercial crop; but a certain quantity of plums could doubtless be used for the manufacture of jams and jellies.

Both in the vicinity of Lima and in the sierra region there are small commercial plantations of strawberries, this fruit being highly



Photograph by Wilson Popenoe.

THE CHIRIMOYA, A "MASTERPIECE OF NATURE."

It is safe to say that the chirimoya is the finest native fruit of Peru. The white, custard-like pulp suggests the pineapple and the banana in flavor, and if eaten when thoroughly chilled, it is a vegetable ice cream. It is produced by a small tree which flourishes in mild, subtropical climates.

successful in Peru. It could be grown more extensively than at present for the production of fruit to be utilized in making jams and preserves.

The English or Persian walnut is highly successful in various parts of Peru, including some of the coastal valleys and those of the sierra.

Probably it could be grown on an extensive scale with great profit. The choice varieties now available in the United States should, however, be introduced before large plantings are made, since those now found in the Republic are in most cases of rather inferior quality.

Peru is one of the few American countries which can produce the oriental date. There are at present, in the region between Pisco and Ica, several thousand bearing palms, but since these are given no



Photograph by Wilson Popenoe.

THE LÚCUMA, A LITTLE-KNOWN PERUVIAN FRUIT.

Outside of Ecuador, Peru, and Chile the lúcumá is practically unknown. It is native to the eastern slopes of the Andes, and is often cultivated on the Pacific side. The fruit is greenish brown externally, and contains mealy yellow flesh of very sweet, musky flavor.

attention whatever and since they are all seedlings, the fruit produced is not of the best quality. Nevertheless, it is exported and is often seen in the markets of Lima. While the climate of the region in question is perhaps not suitable for the production of the highest grades of dates, there are doubtless a number of varieties that could be grown successfully and whose culture should prove very remunera-

tive. The early-ripening kinds such as those of the Persian Gulf region will likely prove to be the best adapted to Peruvian conditions.

The palta, or avocado, a valuable food fruit now receiving attention in the United States, can be grown throughout the coastal region of Peru and in the warmer valleys of the sierra. Its cultivation should certainly be extended, not only for the production of fresh fruit but probably also for the extraction of a valuable salad oil.

All of the citrus fruits—oranges, grapefruit, lemons, and the like—can be grown in Peru, certain sections being well adapted to the cultivation of the finest grades of oranges and lemons. At present, the former are imported from Ecuador in large quantities, and it seems somewhat ridiculous for such to be the case. Peru could not only produce enough oranges for her own needs, but could export to the southern parts of the continent. The region of Palpa is famous for its oranges, which are large, highly colored, and of rich flavor. The best varieties such as Washington Navel and Valencia should be introduced from the United States and planted commercially.

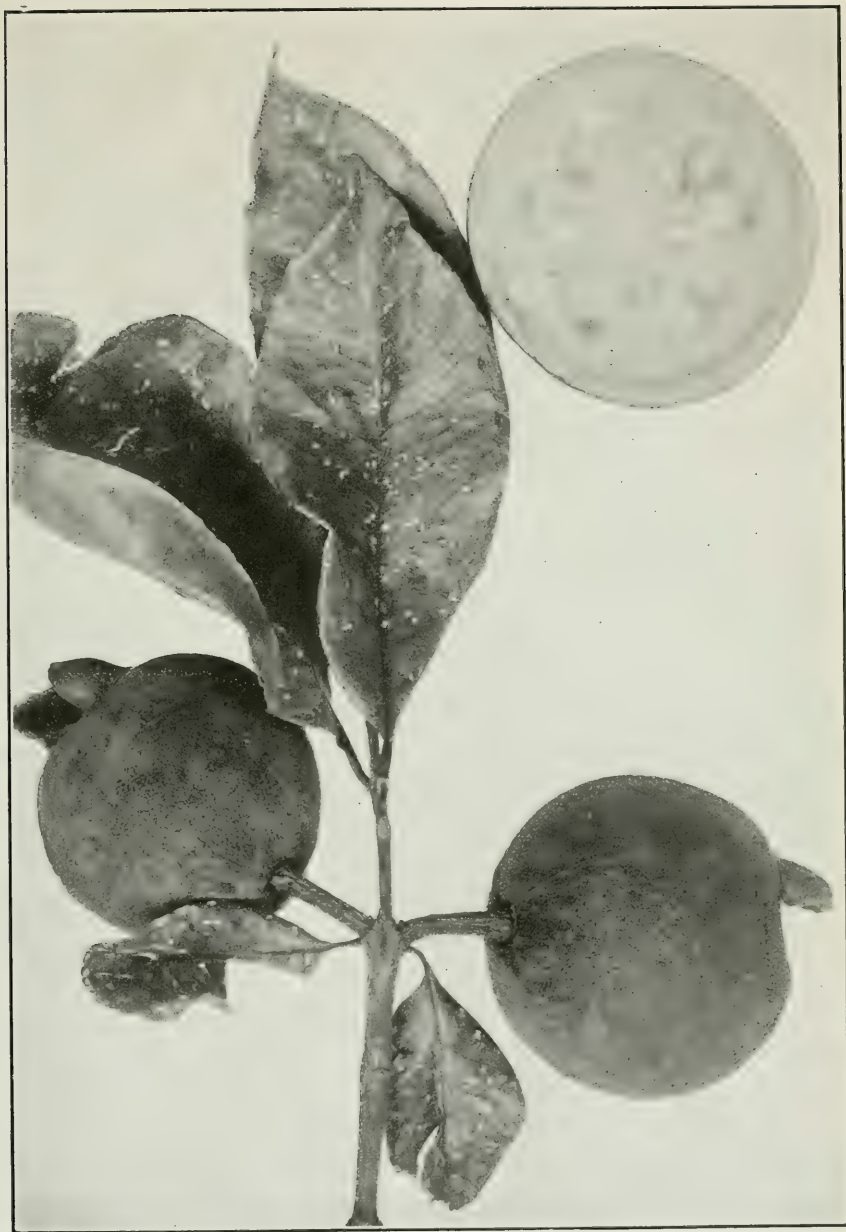
The coastal valleys of northern Peru can grow good bananas, though conditions of climate are not quite so favorable as in Ecuador. At present most of the bananas coming into Peru are brought from the latter country by steamer.

The Valley of Ica and other regions of southern Peru produce excellent grapes. These are of varieties brought from Spain in colonial days. One or two of them are of excellent quality for table or dessert use, and others are used principally for wine making. Grape growing can be increased very profitably in all those regions which are adapted to it. Not only can the manufacture of wine take care of huge quantities of this fruit, but also it seems quite probable that choice table varieties could be exported to the United States, since they ripen in Peru during the month when there is very little fruit in northern markets.

The chirimoya is a delicious fruit native to northern Peru and Ecuador. It is grown in some of the Andean valleys and, less successfully, in the coastal regions. Because of its perishable nature, the chirimoya is not a good fruit for exportation, but the local demand takes care of considerable quantities. Numerous excellent varieties are grown in Peru.

The lúcuma (*Lucuma obovata*) is little known outside of Ecuador, Peru, and Chile, in the former two of which countries it appears to be native. It is not a fruit which would meet with acceptance in North American markets because of its very sweet, almost cloying, flavor. It is sold commercially in several parts of Peru, but is nowhere grown on an extensive scale.

The loquat, called in Peru "níspero del Japon," is quite common on the coast and is occasionally seen in the warmer Andean valleys



GUAVA FRUIT AND LEAF.

The region of Arequipa is particularly famed for its guavas, which are as good in quality as any in America.

such as the Urubamba. The trees, which are nowhere planted in regular orchards, are all seedlings and produce fruit of rather inferior quality. By introducing from the United States the best Japanese varieties, the value of this crop could be greatly enhanced.

In most sections of Peru the climate is too cold for the production of excellent pineapples. The markets of Lima are supplied in part by small and rather inferior fruits brought from the northern coastal valleys, and also by good ones brought from Guayaquil.

The papaya, an excellent breakfast fruit which takes the place of the melon in tropical countries, can be grown in many of the coastal valleys, but not in any part of the inter-Andean region. It demands a rather warm climate. Commercially, its future does not appear to be very important in Peru.

In many of the Andean valleys, the quince grows alongside the apple and pear. It is quite successful, the fruit being of excellent quality and produced in great abundance. With the establishment of jam factories, there may be an outlet for more of this fruit than at present.

In southern Peru excellent olives are grown, those of Ilo being particularly renowned. There seems to be no reason why this crop should not be produced upon a large scale, both for the preparation of preserved olives and for the manufacture of olive oil.

In the coastal region, as well as in the warmer Andean valleys, excellent figs can be grown. There is not, at present, a great demand for these, but the consumption can doubtless be increased, particularly when there are means of utilizing this fruit in the manufacture of jams and preserves. In certain regions dried figs might also be prepared.

The region of Arequipa is particularly famed for its guavas, which are large, white-fleshed, with few seeds, and as good in quality as any in America. Probably they will be extensively utilized in the near future for guava jelly. Up to the present this industry has not been put upon a substantial basis.

There are several kinds of blackberries and raspberries native to the Andes. Some of these produce excellent fruits and are occasionally seen in Andean gardens. The kinds cultivated in North America and in Europe would probably succeed in the Andean region and, in general, are superior to the native sorts. These fruits could doubtless be grown profitably to supply jam or preserve factories, once the latter are established in Peru.

A small, applelike fruit, known as "níspero," is abundantly cultivated in some of the Andean valleys. It is known botanically as *Crataegus stipulosa*, and is related to our northern haws. Its fruits are used for preparing sweetmeats and preserves, but commercially are not very promising.

In the higher Andean region the capulí, a wild cherry which is found from Mexico to Bolivia, is one of the common fruits of dooryards and roadsides. Botanically it is *Prunus salicifolia*. Among the thousands of seedlings which exist, there are some which produce fruit of superior quality, quite equal in size and flavor to some of our northern cherries.



Photograph by Wilson Popenoe.

THE CAPULÍ, A WILD CHERRY OF THE ANDES.

In the highlands of Peru, and elsewhere in the Andean region as well as in Central America and Mexico, the capulí is a popular fruit. The best varieties are as large as good northern cherries and of delicious flavor. The tree is large, and unusually productive.

From this brief enumeration it will be seen that Peru possesses a vast range of fruits, including those of the temperate, subtropical, and tropical zones. With attention to the introduction of superior varieties and the development of modern orchards and horticultural practices, there is no reason why fruit growing should not take a place among the leading industries of the country.

THE DUTIES OF CONSULS¹

By WILBUR J. CARR,

Director of the Consular Service, Department of State.

THERE is probably no class of officers of the Government whose functions are less correctly understood by the public than consuls. To one man a consul is a convenient or inconvenient visaer of passports, depending entirely upon whether he did or did not act as favorably as the individual desired him to do; to another the word "Consul" signifies a glorified traveling salesman charged with the duty of marketing American goods in foreign lands; and to still another the consul is a protector of American lives and property abroad. Many a wife remembers the consul only as the official witness at her marriage in a foreign country when, as the law permits, he gave her a consular certificate as evidence that the marriage ceremony was performed in his presence. Many a mother knows the consul only as a good and kind friend in the far-away land who found and sent her wayward son back to the old home.

Since the contact of each of these persons has been solely through the channel in which he or she was most interested, it is not unnatural that no broader conception of the functions of the consul should have been gained. It would hardly occur to any of these individuals that their contact had been with an organization of trained officers gathering information, extending protection, enforcing American laws and exerting American influence in 400 cities in 50 countries in the world, an organization employing 2,500 men and women, costing about \$4,500,000 annually and returning to the Treasury of the United States in the year 1921 the sum of \$8,500,000, thus showing a net profit to the Government for that year of over \$4,000,000. Neither would it occur to any of them that the members of that organization were serving daily 10 departments and numerous independent establishments of the Government in Washington and, through them or directly, many thousands of individual citizens throughout the country. That is the fact, however. It is the purpose of this article briefly to survey the most important of these activities.

Inasmuch as the system of consular representation developed out of the necessity for some international agency to follow the marine and the trader and, later, the traveler beyond the jurisdiction of his native country and to obtain for him in all parts of the world the protection

¹ From *American Consular Bulletin*.

and intervention of his own Government, it is to be expected that first and foremost of the functions of consular officers should be the protection of the lives and property of Americans traveling or residing abroad and in many ways contributing to their welfare. With the enormous expansion of our commerce in the last decade, the large investment of American capital in foreign enterprises, and latterly the unparalleled expansion of the American merchant marine, there has been a steady increase in the number of travelers, traders, students, seamen, and others journeying to foreign lands and in the appeals from them to their Government for the protection of their interest, the adjustment of their difficulties with the local foreign authorities, or redress or indemnification for injuries and losses sustained.

A DIFFICULT RESCUE.

The Department of State and the Consular Service dealt with 48,078 cases of this description last year. One, although typical in many respects, was of such an unusual character as to justify a more detailed description. A merchant from New York was on a business trip to the Russian Caucasus. While he was there a revolution occurred in the district in which his business lay. His silence alarmed his relatives in the United States and the aid of the Department of State was sought, which in turn learned through the consul at the place nearest the seat of the disturbance that the merchant was detained by the revolutionists and was without means. Money was supplied by the relatives and transmitted by the Department of State to the consul. That resourceful officer succeeded in employing an adventurous agent who found his way through the lines of the revolutionists, obtained the merchant's release, after much difficulty, brought him back to the consul and started him on his way to America.

It is not infrequently necessary to protect American trade in a manner equally direct. In a part of Mongolia from which commodities valued at \$15,000,000 were shipped to the United States in 1920, trade recently ceased. Money had been invested, but permission to move merchandise from the country was denied. The consul, supported by the American Minister, took charge of the situation with the result that in a few days shipments valued at \$150,000 were released, three American firms had sent representatives to open business relations with the district, and obstacles to future trade were removed.

The many other cases of protection and relief ranged from finding lost relatives and shielding well-meaning but indiscreet American travelers from the legal consequences of their rash acts, to rescuing indigent relatives from starvation and death.

CONSULS CONSERVE ESTATES.

Another function which consuls perform under the Department of State is that of conserving the estates of American citizens dying abroad. The statutes of the United States make the consul the provisional conservator of the personal estate of such persons in so far as the laws of the foreign country may permit; require him to take such estates into his possession, dispose of perishable goods at public sale, collect the debts due the deceased in the country where the death occurred, pay the debts there contracted, and finally to account to the legal representatives in the United States or to the Treasurer of the United States. Last year consuls reported 1,010 deaths of American citizens abroad and settled 607 estates. One of these was that of an American electrical engineer in far-away



Courtesy of the Department of State.

THE UNITED STATES CONSULATE GENERAL AT MEXICO CITY.

This building is located on the Paseo de la Reforma. At the right is the famous statue of Carlos IV.

Afghanistan; another that of the victim of a train wreck in Spain; and one that of a man who died in Mexico, for whose relatives the Department of State is still searching in order that they may receive the proceeds of the personal estate which he left.

Citizenship and the doctrines of allegiance enter into all appeals for protection and assistance by Americans abroad. In every appeal for aid there must be considered the question of the right of the person making the demand and invoking the protection of the American Government. In order to make immediately effective the assistance of the Government in proper cases Americans residing abroad are called upon annually to register at American consulates and prove their right to continued protection. In these days of general pass-

port requirements consuls have many duties in connection with the issue or verification of passports. Last year consular officers registered 6,585 Americans and performed passport services numbering in all 150,117.

What is known as the alien visa control has imposed upon consular officers a tremendous burden of work. The activities of the enemy during the war made it necessary for the Government to establish very direct control over travel and hence each person was required to have a passport and to have it visaed by the consul of the country into which the traveler intended to go. The system proved so valuable that when the armistice was signed it was decided to retain the visa control system as a protection against world revolutionists and fanatics who were attempting to spread their propaganda to create unrest and provoke movements subversive of the best interests of the country.

The United States was looked upon as an especially fertile field for the activities of persons of this description. The visa system aimed to keep them out of this country and was and is administered by consular officers. In 1920 the great wave of migration started. It was the American consul's duty to sift from the thousands of prospective immigrants the undesirables, the Bolsheviks, and the anarchists. The passports of 657,968 aliens bound for the United States were visaed by our consuls abroad during the past year. Many frauds were uncovered, gangs of crooks manufacturing and selling fraudulent passports were discovered in many places in Europe and were broken up. Their passports were traced to the ports of the United States. Of 35 passports examined at one port 5 were found to be fraudulent. At another port 31 fraudulent visas were found upon one America-bound steamer, while examination at another port led to the discovery of persons dealing in fraudulent passports through whom 390 false passports were placed in circulation within one month. Counterfeit passports cleverly copied, rubber stamps for visas, counterfeit fee stamps and seals—all were found and destroyed and the practices stopped.

If consuls possessed no other functions they would justify the expenditures made for their maintenance because of their usefulness in connection with the conduct of our foreign relations, in maintaining constant contact with local foreign officials, business men and individuals, and in enlightening the Department of State on matters relating to foreign policy, the protection of American rights and commercial and other opportunities in foreign lands. Indeed, they are the only officers of the United States abroad maintaining continuous contact with officials and citizens in the localities in which

they are stationed in the manner in which diplomatic officers maintain contact with foreign Governments at the capital cities.

These are but a few of the activities of consular officers which relate more especially to the work of the Department of State. Everyone who has lived or engaged in business abroad is familiar with the many notarial acts performed by consuls. Last year the number reached 235,194. Other functions relate to taking depositions and executing judicial commissions, acting as official witnesses



Courtesy of the Department of State.

THE UNITED STATES CONSULATE, PUERTO
CABELLO, VENEZUELA.

of marriages of Americans abroad, recording of vital statistics, and a multitude of other duties a description of which space will not permit.

SERVICES TO THE TREASURY DEPARTMENT.

Consular officers render to the Treasury Department conspicuous service, particularly in connection with the protection of the revenue and the public health. Part of the machinery for the protection of the customs revenue consists in a requirement of law that the cor-

rectness of the invoiced value of merchandise exported to the United States shall be certified by consular officers. Such invoices to the number of 546,239 were certified by consuls in 1921 and involved inquiry into the cost of production of the merchandise abroad, the selling process, the terms of sale, and many other factors entering into the assessment of duty at the American port of entry. Certificates required by our internal revenue laws on the landing of American merchandise at foreign ports were issued to the number of 2,546. Consuls have materially aided the Treasury in the collection of income taxes from Americans residing abroad. One consul alone was able to obtain payment of taxes amounting to about \$30,000.

The protection of the public health of the United States is one of the most important duties performed by consuls at foreign seaports. Every vessel sailing for a port of the United States must obtain from the American consul at the port of departure a bill of health, describing the condition of the port, vessel, crew, passengers, and cargo. Many times before issuing a bill of health the ship must be disinfected, and as cargo may carry infection of shipment, all merchandise must be carefully watched and if necessary disinfection ordered and supervised. Crews of vessels must be required to observe the regulations as to the sanitary condition of passengers, especially those traveling in steerage. All these duties assume great importance during epidemics of cholera, plague, or other contagious or infectious diseases. Last year consuls issued 39,366 bills of health.

The public health finds further protection at the hands of the Consular Service through the assistance rendered in controlling shipments of impure food and drug products to the United States, by the detection of the use of harmful conservatives in manufacture and of misbranding of products, investigation of insanitary conditions in foreign factories, and by the verification of the declarations which must accompany shipments of that nature.

The duty which has proved of much practical value in recent years is that of preventing the introduction into the United States of contagious and infectious diseases of cattle, through the supervision of all shipments of hides, cattle, and glue stock, and insistence upon their disinfection abroad under consular supervision. Last year 4,282 certificates of disinfection were issued by consular officers as evidence of the disinfection of shipments in accordance with the laws of the United States.

In the study of the spread of diseases, in order to safeguard the United States against them, consuls render important service by reporting weekly upon the sanitary condition of the ports or places at which they may be stationed. Over 13,200 reports of this nature were made by consuls during 1921. The Surgeon General of the Public Health Service has stated recently that the "functioning of the entire

consular force in issuing bills of health and forwarding sanitary data is almost the cornerstone of our quarantine structure."

The Veterans' Bureau of the Treasury Department has found the Consular Service a useful agency through which to direct the distribution of the benefits of the war risk insurance acts to the relatives of the large number of foreign-born soldiers of the United States Army who reside abroad. This work involves the investigation of the families of American ex-service men, the distribution of checks, detection of fraudulent claims and other like conditions. The consul general at Warsaw, for example, has been delivering between 500 and 600 checks each month to beneficiaries residing in Poland, and similar work is done at many other places.

COOPERATION WITH THE NAVY.

In view of the frequent presence of American naval vessels in foreign waters and the fact that vessels of the Navy are so often called upon by consular officers for protection from temporary local disturbances, the Navy Department has borne for years a most intimate relation to the foreign service. During the war, consuls acted as the agents of the Navy Department in foreign countries in the purchase of large quantities of raw material needed in the manufacture of articles for the prosecution of the war. There were purchases of nitrate from Chile, of tin from Singapore, of shellac from India, all made and financed by officers of the Consular Service. In times of peace consuls regularly supply the Navy with hydrographic data, information concerning port rules and foreign harbor and coaling facilities.

Consuls render service of much value to the Post Office Department in reporting the misuse of mails, the sending of fraudulent mail matter from foreign countries into the United States, calculated to deceive and defraud our people. They also supply much useful advice in connection with the utility of the parcel post in the promotion of our export trade.

While the work of consuls is mainly of a peaceful character and touches only occasionally the regular duties of the Army, consuls are of service in supplying much geographical information and in acting as purchasing agents from time to time at ports of the world where Army purchasing agents are not maintained. During the World War American consuls, like the consuls of every nation, became intelligence agents, passport control officers, and in many other ways gave active assistance in the prosecution of the war.

LABOR STATISTICS BENEFITED.

The labor interests of the country also are direct beneficiaries of the activities of consular officers, in that much of the information upon

the basis of which are compiled the statistics of prices and wages and cost of living throughout the world is supplied by members of the Consular Service. This information has a distinct and practical bearing upon the labor market in this country. Moreover, it is one of the duties of consular officers to report attempted violations of the contract labor law, which information is communicated to the Department of Labor for appropriate action by the immigration officers.

Attempted violations of our laws and treaties prohibiting the admission of Chinese of the laboring classes have been frequent, and one of the means of preventing violations of the law and yet facilitating the



Courtesy of the Department of State.

THE UNITED STATES CONSULATE, BARRANQUILLA, COLOMBIA.

entry of Chinese not coming within the scope of the law against Chinese labor is what is known as the section 6 certificate issued by consular officers to Chinese persons entitled to enter the United States. In 1921 consuls issued 1,386 of these certificates.

Soon after its establishment the Federal Reserve Board sought the assistance of consular officers in collecting from various parts of the world data in regard to prices, exchange and financial conditions. Much of this information reaches the public monthly through the Federal Reserve Bulletin, and is proving of great value to the financial and business public.

CAPTURING CRIMINALS.

Few weeks go by without an attempt of some violator of our laws to find safety from their operation in some foreign country, necessitating the detention of the offender and his extradition for trial in our courts. Last year consuls assisted in 80 cases of extradition of fugitives from justice. It is likewise part of the duty of a consul to send home for trial persons committing crimes on the high seas upon American merchant vessels.

It is a common function of consular officers to take depositions and execute judicial commissions for use in the courts of this country. Perhaps one of the most expensive cases of this description was that of a suit of a steamship company against the Alien Property Custodian, which occupied part of the time of the consul general at Copenhagen for 122 days, embraced 3,360 pages of testimony and the examination of 15 witnesses, and involved the payment to the Government of fees in the amount of \$4,612. In 1921 more than 500 commissions to take testimony were executed.

HERE ARE SOME VARIED DUTIES.

For many years the consul has been a sort of guardian of the old soldier and has executed pension vouchers and acted as a distributor of pension checks to the veterans of the Civil War residing abroad. Consuls have also been the officers before whom inventors executed many of their applications for patents in the United States. They have supplied the Department of the Interior with geological data, with information in regard to mines and mining and with a vast amount of information about educational systems and educational conditions which has found its way to the public through the bulletins of the Bureau of Education. This bureau finds the information supplied by consular officers indispensable in enabling it to carry on its division of foreign education, to give to American schools the benefit of the experience and researches of the world in the field of education, and to evaluate in terms of school credits in the United States the school credits of students from abroad, whose numbers are increasing.

TRADE WORK WELL KNOWN.

Perhaps the best advertised functions of consular officers are those relating to the promotion of trade. Great stress has been laid during the past decade upon this branch of consular activity, and as a result there has been created a great commercial intelligence system out of such portions of the time of consuls as are not required for the performance of their other regular functions.

For example, consuls are expected to reply fully and in a practical manner to inquiries from business men in regard to commercial questions and the possibility of marketing their products abroad, to furnish explicit and comprehensive data upon the requirements and demands of consumers in the markets of their respective districts, to report upon local trade attributes and peculiarities, especially as they relate to sales and payments and best methods of reaching the markets, and the nature of the merchandise sold in their districts which can be supplied to good advantage by the United States. Consuls replied in 1921 to 82,237 trade inquiries.

Besides answering these specific inquiries consuls are expected to attach a printed information sheet concerning their districts, giving boundaries, population, tariff provisions, principal products, trade tendencies and other facts designed to furnish the American exporter an outline of the principal conditions under which his merchandise is to be sold.

Reports upon all phases of trade extension for 1921 numbered 15,582, all of which were forwarded to the Department of Commerce for publication or distribution in some other manner to the business men of the country.

The Consular Service is more particularly interested in obtaining concrete results in trade extension work and to that end makes a special effort to gather and report trade opportunities. An average of 150 such trade opportunities is received every month and disseminated to the public through the Department of Commerce. The direct result of this service is the sale of millions of dollars' worth of American goods in foreign countries.

To illustrate, Frederic W. Goding, consul general at Guayaquil, reported a trade opportunity involving approximately \$1,000,000 which, it is understood, has been awarded to an American firm. Philip Holland, consul at Basel, Switzerland, through his personal efforts succeeded in having an order for \$14,000 worth of shoes placed with an American firm in competition with foreign houses. Frederick T. F. Dumont, consul at Dublin, reported the shipment of approximately 35,000 tons of American coal to Ireland as the result of his activities. Dudley G. Dwyre, consul at Maracaibo, succeeded in placing several agencies for American goods in Venezuela, one of which resulted in an order for 10 American automobiles. Another officer was fortunate enough to arrange a contract valued at \$2,000,000 between the Government of the country in which he was situated and an American firm for locomotives. These are but a few illustrations of the kind of work done by consuls in addition to their many other activities. When it is considered that achievements of this kind continue from year to year, an idea may be gained of the immense value of consuls in practical trade extension.

TRADE DIRECTORY OF WHOLE WORLD.

There is still another field in which consuls have proved serviceable, and that is in gathering definite up-to-date information concerning merchants and importers in foreign countries dealing in products which might be supplied by American manufacturers. A manufacturer of shoes at Boston may be selling his product in Valparaiso, Chile, and may desire to discover other shoe dealers in Santiago or Concepcion likely to be interested in American shoes. He need only to write to the Bureau of Foreign and Domestic Commerce of the Department of Commerce at Washington to obtain complete lists of the principal reliable dealers in these other districts, lists which give the capitalization of the dealers, their nationalities, volume of business, and other pertinent details. Like information in regard to merchants in every city of importance throughout the whole world is available. More than 95 per cent of these names listed in the Bureau of Foreign and Domestic Commerce and supplied to American exporters are furnished through the Department of State by American consular officers stationed abroad. From January 1 to October 20, 1921, consuls supplied no less than 15,270 names of carefully selected foreign merchants and these World Trade Directory reports are being constantly revised and kept thoroughly up to date.

A new field of consular activity is found in the settlement of trade disputes. Although consuls are not legally empowered to arbitrate or officially to settle trade differences between American and foreign merchants, they have been able through their unofficial good offices to assist in adjusting thousands of such difficulties. This has been an important factor in aiding American business interests in many instances to secure fair treatment and has assisted materially in maintaining the prestige of American business abroad. Special credit in this regard may be given to Carlton Bailey Hurst, consul general at Habana, and to Arthur C. Frost, consul at Guatemala, who have adjusted a number of trade controversies. Recently Thomas H. Bevan, consul at Bahia, transmitted a draft of several hundred dollars through the Department of State to an American firm in settlement of a trade dispute with a Brazilian business house.

But the right in trade disputes does not always lie with the American firm. Recently George H. Pickerell, consul at Para, submitted the complaint of a Brazilian firm that a shipment of American goods had been unsatisfactory. The American firm, upon investigation, found that a mistake had been made and a credit of \$5,000 was immediately extended to the complaining firm, thus enabling the exporter to maintain his friendly relations and carry on his trade in that district. Likewise Charles J. Pisar, vice consul at Cape Town,

submitted the complaint of a South African importer, of inferior goods shipped by an American house. The latter at once sent a new shipment to replace the goods which were the cause of the complaint.

In all the work in behalf of export trade the closest relations exist between the Departments of State and of Commerce, which are seeking to utilize not only the Consular Service but the Diplomatic Service as well to promote in the most effective manner the advancement of American trade.

HOW CONSULS HELP THE FARMER.

The farmer also has an interest in the maintenance of the consular organization. Through the Department of Agriculture it supplies him with statistics of agricultural production, with crop reports, with statistics of prices of agricultural products. Furthermore, the consul acts as a sort of international policeman, carefully guarding the cattle and other live stock of this country by preventing the shipment to this country of diseased hides and safeguarding the orchards and nurseries and vineyards by denying permission for the exportation of plants and shrubs from regions infected with insect pests. The service rendered to the farmer and fruit grower by the Consular Service has been incalculable, and yet is one of which little is known because it is one about which obviously little can be said.

The work done by consuls in the discovery of new plants for the Department of Agriculture is important, and we give a few illustrations of the practical results in this field of activity. For example, Consul General Seidmore (Yokohama) and S. P. Barchet, formerly interpreter in Shanghai, contributed collections of soy beans from Korea and China which have played a large part in the development of that great industry in this country. Consul Magelssen sent the shoots from which the date palms are now growing in the oases of southern California. Other officers have sent wild rice, mangoes, new species of walnuts, new varieties of flax, of grapes and of melons, many of which under the expert care and distribution of the Department of Agriculture have added greatly to the material wealth of the country.

The duties connected with shipping were among the earliest with which consular officers were charged. Indeed, vessels and seamen have from time immemorial been the special care of the consul. Last year our consuls discharged 26,713 seamen and shipped 33,464. They reported 3,129 who had deserted and 209 who had died. They rendered services to 27,837 vessels on entry and 27,838 upon clearance. They entered 7,720 marine and "extended" protests during the year 1921, and relieved or sent home 5,197 seamen at a cost of

\$214,619.90. Practically ever since the Government has operated vessels in the merchant service consular officers have been called upon to safeguard the interests of the Government. In 1917 they financed all Shipping Board vessels in foreign ports, carefully preparing all accounts covering expenditures.

Their special care of vessels led to a number of annoying incidents in which the consul's value to the Government was clearly shown. For example, the steamship *Lake Elkwood* reached the port of Rio de Janeiro in a damaged condition and fell into the hands of unscrupulous repairers. After many complications the consul was called upon to remove the master and take over the affairs of the vessel. Large sums of money were saved to the Government. The consul's acts were so vigorously resisted by the master and others that the case was finally brought before a court in the United States, which upheld the consul.

Some time later the same consul uncovered a conspiracy on the part of the master and chief engineer of another steamer to receive a comparatively small amount of oil and charge for a much larger amount, thereby defrauding the Government of the difference. The conspiracy was reported and the offenders were brought to justice.

The steamship *Poughkeepsie*, owned by the Shipping Board, entered Bermuda in distress. The crew demanded discharge and refused to perform their duties. The master, unable to cope with the situation, placed the matter in the hands of the consul, who held that the crew had conspired to mutiny. He thereupon had them arrested and shipped other men in their places, thus saving the vessel considerable time and expense. The United States Circuit Court of Appeals later confirmed the judgment of the consul.

One of the most recent, as well as one of the most outstanding, contributions of a consul to the upbuilding of American shipping was that of the consul at Alexandria, Egypt, Lester Maynard, in connection with the carrying of cotton from Egypt to the United States. Egyptian cotton is an essential in the manufacture of automobile tires, and the imports into the United States of this product amount to about 125,000 bales annually. British shipping interests had combined some 25 years ago to transport all of the exports of Egyptian cotton to the United Kingdom as well as to the United States. Therefore, when the new vessels of our merchant marine began plying into the port of Alexandria they found the wharves filled with bales of cotton but all of them invoiced to be shipped in British vessels. Consul Maynard undertook the task of getting a share of this transportation for American vessels, and, after continued work for more than a year, succeeded in making an arrangement whereby one-half of the Egyptian cotton exported to the United States should be carried

in American bottoms. The amount of money which this gives into the hands of American interests for freight alone may reach as high as half a million dollars, and in addition to this a profitable opportunity is opened for American marine insurance companies and also to American banking interests.

These are some of the ordinary things that a consul does. The extraordinary things are beyond enumeration or prophecy. A consul may be, and frequently is, called upon to do anything conceivable that no one else has tried or been able to do. And the essence of the matter is that he does it.

American consuls serve practically every branch of our Government, every business man and, either directly or indirectly, every private citizen.

The chart on the page following shows how information gathered by them is concentrated in the Department of State and then distributed to the various governmental agencies and to private concerns and individuals.

A consul's more important duties are shown, but by no means all of them.

Partial list of services performed by American consular officers during fiscal year ended June 30, 1921.

Protection and welfare cases.....	48, 078	Voluntary trade reports.....	9, 215
Deaths of Americans abroad.....	1, 010	Called-for trade reports.....	6, 367
Estates settled.....	607	Replies to trade inquiries.....	82, 237
Registration of Americans.....	6, 585	Trade opportunities (about).....	2, 000
Passport services (Americans)....	150, 117	Disinfection certificates.....	4, 282
Passport visas (aliens).....	657, 968	Notarial services.....	235, 194
Section 6 certificates (Chinese)...	1, 386	Consular invoices.....	546, 239
Depositions and commissions...	500	Landing certificates.....	2, 546
Extradition cases.....	80	Bills of health.....	39, 366
Marine protests.....	7, 720	Sanitary reports.....	13, 254
Seamen shipped.....	33, 464	American vessels entered.....	27, 837
Seamen discharged.....	26, 713	American vessels cleared.....	27, 838
Seamen deserted.....	3, 129	Miscellaneous correspondence:	
Seamen deceased.....	209	Letters received.....	756, 824
Seamen relieved.....	5, 197	Letters sent.....	871, 891
Total fees collected for year 1920-21.....		\$8, 517, 020. 47	
Gross cost of Consular Service, 1920-21.....		4, 405, 598. 85	
Net gain to the Government.....		4, 111, 421. 62	

THE FIRST AERIAL FLIGHT FROM LISBON TO RIO

THE successful completion of the flight of the gallant Portuguese aviators Saccadura Cabral and Gago Coutinho from Lisbon to Rio de Janeiro has awakened great enthusiasm in aviation and scientific circles all over the world and particularly in Portugal and Brazil.

The flight was interrupted by two serious accidents which served to disable two successive planes and was only continued and completed owing to the dauntless courage of the two intrepid Portuguese officers who had undertaken it and the prompt action of the Portuguese Government in sending new planes to take the place of the ones which had been disabled. Notwithstanding the delays caused by these mishaps, the exploit of Saccadura Cabral and Gago Coutinho is considered a distinct triumph, as being a complete aerial flight, the first ever achieved between the Old World and Brazil.

The *Fairey 17* made its appearance over Rio de Janeiro in the early afternoon of June 17, which happened to be a dark and stormy day. The inclemency of the weather, however, was not able to damp the enthusiasm of the people, who filled the streets and avenues and occupied the windows and porches throughout the entire length of the Avenida Rio Branco, along which the intrepid and distinguished guests were expected to pass after landing.

At 2 o'clock the signal station of the aviation school announced the arrival of the hydroplane, which almost instantly appeared at the entrance of the bay. Ten minutes later it skimmed the waters of the Guanabara, whence it was towed to the neighborhood of the aviation school by a launch from the cruiser *Republica*.

Saccadura Cabral and Gago Coutinho finished their last lap amid prolonged and thunderous roars of applause, being welcomed by the personal representative of the President of the Republic, by the Portuguese Ambassador, and the special committee of reception. In addition to the official representatives of the Government and a multitude of sporting and social organizations, the successful aviators were greeted by a vast crowd of spontaneous and enthusiastic admirers, estimated at not less than a hundred thousand people.

This notable flight was made in nine laps, or "hops," as follows: Lisbon-Canaries, Canaries-St. Vincent, St. Vincent-St. Pauls Rocks, St. Pauls Rocks-Fernando de Noronha, Fernando de Noronha-Pernambuco, Pernambuco-Bahia, Bahia-Porto Seguro, Porto Seguro-Victoria, and Victoria-Rio de Janeiro.

At 7 o'clock sharp, March 30, 1922, Captains Saccadura Cabral and Gago Coutinho started in their hydroplane *Lusitania*—a *Fairey* of 400 horsepower—bound for the Canaries. This stretch of 710 miles was covered in eight hours, the exact time which had been previously set by the aviators, according to their close calculations.

From the Canaries the *Lusitania* started for Cape St. Vincent, where she arrived on April 3, having covered 874 miles in 10 hours and 20 minutes.

On the 17th of April the departure from St. Vincent was made for the city of Praia, which was reached and left behind on the 18th for St. Pauls Rocks. The distance covered up to this stage of the flight was 1,053 miles.



Courtesy of Tohltt, Mexico.

HIS EXCELLENCY, SR. DON EPITACIO PESSOA, THE PRESIDENT OF BRAZIL, AND THE PORTUGUESE AVIATORS, CAPTAIN SACCADURA CABRAL AND CAPTAIN GAGO COUTINHO.

At the conclusion of this lap, and when the aviators were about to moor their plane, one of the floaters was torn away by the violence of the waves, as a result of which the *Lusitania* was completely disabled. After running great personal risk, the aviators were finally rescued. The remainder of the journey was undertaken in a second plane which was forwarded to them by the Government of Portugal and which was styled the *Fairey 16*.

At 9 a. m. on the 11th of May this new plane left Fernando de Noronha for St. Pauls Rocks, the return trip beginning at 2.35 p. m. An hour later, motor trouble developed, the plane descending without accident at a point 170 miles from Fernando de Noronha, and to

the north of the Rocks. Although undamaged, the floaters began to fill with water, and the situation of the aviators became precarious in the extreme. Fortunately, however, at 11.40 p. m. the aviators sighted the British steamer *City of Paris*, Captain Tomlyn, by whom they were taken on board. The floaters continued to fill, so that by the time the Brazilian cruiser *Republica* arrived the plane had sunk, notwithstanding all the efforts which were made to save it.

A third plane was then sent out from Portugal, the *Fairey 17*, and, on June 5, the aviators again started for Pernambuco, covering the distance of 390 miles in 3 hours and 40 minutes.

On June 8, at 8.10 a. m., the aviators left Pernambuco for Bahia, where they arrived at 1.30 p. m., having covered 386 miles in 5 hours and 10 minutes.



Courtesy of Tobitt, Mexico.

THE LANDING OF THE FAIREY 17 AT RIO DE JANEIRO, JUNE 17, 1922.

The flight from Lisbon to Rio de Janeiro, though interrupted by two serious accidents, was considered a distinct triumph, being the first ever achieved between the Old World and Brazil.

On the morning of the 13th, the *Fairey 17* left Bahia for Porto Seguro, arriving at that place at 11.45 a. m. after covering 225 miles in 4 hours and 15 minutes.

Porto Seguro was left behind at 7.50 a. m. on the 15th, Victoria being reached at 11.45 a. m., the distance covered being 263 miles in 3 hours and 35 minutes.

The last lap was begun on June 17 at 9.28 a. m., the distance from Victoria to Rio de Janeiro being 288 miles, which was covered in 4 hours and 57 minutes.

The total length of the flight was 4,439 miles, the actual flying time being 58 hours 10 minutes.

LATIN AMERICAN GENERALIZATIONS

By W. C. WELLS,

Chief Statistician, Pan American Union.

THE habit of thought into which people in the United States—and Europeans as well—seem naturally to fall of viewing Latin America as an entity, in other words, generalizing, is responsible for most of the errors so apparent to those few who in reality do know something of Latin America as a whole or of any single Republic thereof. Of more consequence is the fact that this habit is, of all things, the most offensive to the individual Latin American. It may be that the generalizer himself sees nothing offensive in the fact of attributing to all the 20 Republics conditions or circumstances which he knows — sometimes he merely thinks he knows — to be true of one or maybe two of them. In fact there may be nothing intrinsically offensive in the attribution. If all were philosophers, a native of Louisiana might feel only mildly amused to be told that most Louisianans were descendants of Cherokee Indians and that the chief industry of their State was ice-cutting and the chief amusement mountain climbing. But even philosophers might wince a little when the matters spoken of relate to habits, culture, and political and social conditions. The Latin American naturally feels that every country, as every man, has a right to his own individuality. The mere fact that the dominant race of all Latin America came originally from Spain and Portugal and that the language, and, in the main, the culture, is from the same sources does not make the several countries identical or to any extraordinary degree similar. Four centuries of separation, different ethnic admixtures, entirely different physical surroundings, and what counts for as much or more than all else, almost no intercommunication among the several sections, have individualized the Republics of Spanish-speaking America and Brazil as English-speaking countries are not individualized. No one in his senses would group the British Islands, the United States, Australia, New Zealand, South Africa, Jamaica, the Falklands, Canada, and Alaska as countries of marked similarities of race, culture, political conditions, or industry. Yet the dissimilarities of Latin America are greater than of this English-speaking group. It is not a question

whether one Latin American country be on a higher plane than another. Assertions of this kind can not be proven, ought not to be made, and true or untrue are equally odious. It is that they are different, in the same ways that New Zealand, South Africa, and Ireland are different.

There has been too much generalization about wars and revolutions. As a generalization Latin American supposed propensity toward war and revolution is not true and, particularized, is more than half untrue. Nearly all Latin American so-called revolutions are simple political outbreaks, *émeutés* or *coups d'état* that involve little or no elements of armed conflict. Latin American interstate wars for the most part—and at this there have been but few—are frontier clashes that one would not dignify with the name of war anywhere else on the globe. Almost every small disturbance that has occurred in any part of Latin America for a century has been called in the United States a war or a revolution and has been used to point a moral that all Latin America is predisposed to war and revolution. If one limits the use of the word "war" to conditions of belligerency that elsewhere under like circumstances would be so qualified, it would be difficult to maintain that Latin American countries since the date of their independence have ever fought more than two interstate wars, that of Paraguay against Brazil, Argentina, and Uruguay in 1870, and nine years later Chile against Peru and Bolivia. Of wars with countries outside the group the chief is the Mexico-Texas—United States war to which may be added the Mexico—France (Maximilian) war. Two or three of the countries have had slight clashes with Spain since the date of independence but none of these can properly be called a war. However, one must take into account that most Latin Americans would dissent very strongly from the view that their histories for the last 100 years have been markedly pacific. They would—their written histories do—enumerate some scores or at least dozens of wars. But, for the most, this dissent arises from a different use of terms; the words "war" and "revolution" (*guerra*, *revolución*) are used in Spanish much more comprehensively than in English. A history of the United States written with a Spanish or Portuguese flair would set forth fifty or a hundred wars since 1776.

Revolutions in Latin America, with very few exceptions, are no more serious impedimenta to civilization, industry, and the exercise of the rights of life, liberty, and the pursuit of happiness than political and industrial disturbances in the United States and England that are not called revolutions. A great industrial strike, such as happens every few years here, may well be considered a more potent blow at the foundations of organized society than nineteen out of

twenty Latin American revolutions. Certainly more people are killed and more material damage is done.

Wars and revolutions change national boundaries and forms of government. Few Latin American wars or revolutions do either. Take a series of maps of Europe from 1810 to 1920, the period of Latin American independence, and one finds that Europe for the greater part, as the result of wars and revolutions, has made itself over four or five times. The map of central southern and south-eastern Europe of 1830 would be as little recognized now or even before the late war, say 1900, as if it were some other and distinct part of the globe. The British Islands and the Hispanic Peninsula represent nearly all that has remained permanent in boundaries for a hundred years. Go back to 1810 and the map bears but little resemblance to 1830. Come forward to 1848 or to 1870 and the picture in large and important details has been redrawn again at least twice. Then once more in eastern Europe, in less than 10 years after 1870 large areas are redrawn. Finally we have, following the great war of 1914-1918, a new map which is not yet completely redrawn. So it has been in Europe, Asia, and Africa for 20 centuries, not to go back of the Roman period.

Latin America makes no claim to being pacific—might even resent the suggestion, but let us look at a corresponding series of Latin American maps. Whereas in Europe wars and revolutions in almost any 30 or 40 year period from 1810 to 1920 render the map about as useless as if it were of the time of Julius Cæsar, in Latin America the map of 100 years ago is substantially the map of to-day. Make corrections for geographical discoveries and rectifications, put in the railways and the newer towns and cities, and, except for Mexico, Peru, Chile, and Bolivia, the map of the time of Hidalgo, Bolivar, and San Martin serves for to-day. The northern territories of Mexico are now incorporated in the United States. Chile has acquired Antofagasta from Bolivia and Tarapaca from Peru; the Argentine Provinces are definitely consolidated as one State and Panama has seceded from Colombia.

For the rest there is no boundary change readily recognizable on the map. As a matter of fact there have been some 30 or 40 minor boundary adjustments in uninhabited areas made through agreement and arbitration, but excepting the Mexican, Peruvian, and Bolivian losses of territory no boundary change is the resultant of war or revolution. From the Paraguayan standpoint another exception would be made as to the strip of territory north of the Apa River which before the Paraguayan war was claimed by both Paraguay and Brazil, and after the war was appropriated by the latter under the claim of ancient right, not conquest. Sixteen, or if we

accept the Paraguayan view 15, of the 20 Republics represent territories practically identical—as practical as is possible in unsettled and unsurveyed countries—with the territories of the equivalent Spanish and Portuguese colonial divisions. If we except Mexico, the territorial changes resulting from all causes do not represent 2 per cent of the area. Of course it is understood that territorial claims in Latin America, especially in Central and South America, made to unsettled and unsurveyed lands at some time during the last century have exceeded 2 per cent of the area, in fact have amounted to near 10 per cent, but adjustments by agreement of contested boundaries in unappropriated territories can not properly be called changes of boundary. In reality such adjustments are determinations of boundary. Even where there has been some slight settlement or exercise of dominion one must take the extreme ultrapatriotic view of one or the other side to call the agreed adjustment or arbitral award a loss of territory.

If then one must generalize about Latin-American wars and revolutions it is not far from the truth to say that Latin America has had fewer, and those on a smaller scale and productive of less harmful results, than any other part of the habitable globe. But if one is after facts worth the knowing he will not jejune generalize about Latin-American wars or revolutions or anything else Latin American.

Cuba is no more like Mexico, or Argentina like either, or Brazil any one of the three, than Pennsylvania, Natal, the Shetland Islands and Barbados are alike; even less so, because Brazil speaks a different language from Mexico, Argentina, and Cuba.



AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

MEAT TRADE IN 1921.—Number of animals slaughtered:

	Packing houses.	Liniers (slaughter houses).	Interior (estimated).	Total.
Beeves.....	1,560,843	590,725	3,052,000	5,203,568
Sheep.....	3,804,495	1,063,468	5,722,500	10,590,463
Hogs.....	263,731	218,509	763,000	1,245,240

In 1921 animals were exported on the hoof through all ports as follows: Beeves, 13,567; sheep, 7,638; and hogs, 7.

CEREAL EXPORTS. Cereal exports from January to May, 1922, inclusive, by tons, were as follows: Wheat, 2,177,954, against 1,115,691 in 1921; maize, 768,769, against 651,710 in 1921; linseed, 354,700, against 511,915 in 1921; oats, 186,017, against 174,255 in 1921; barley, 11,329, against 24,733 in 1921; birdseed, 4,393, against 962 in 1921; and flour, 51,904, against 14,070 in 1921.

LOANS TO STOCK RAISERS.—The Banco de la Nación has decided to grant limited credits to live-stock breeders for the purchase of pedigreed animals.

PRIZE FRUIT.—The judges in the fruit exhibit organized by the Museum of the Sociedad Rural Argentino awarded prizes for the best oranges, mandarin oranges, apples, lemons, peaches, pears, and plums. The object of the exposition is to encourage native growers to produce sufficient fruits of the desired varieties to do away to a large extent with the importation of fruit.

FOREIGN MARKET FOR ARGENTINE MEAT.—As has already been mentioned in earlier numbers of the BULLETIN, commissioners were sent to the central European countries and to Great Britain to stimulate the market for Argentine meat, with the result that arrangements are being carried forward with a German syndicate for the purchase of Argentine meat and beef on the hoof. The agent in London has reported that Argentine meats are desired in that market and sell easily at good prices. An Argentine syndicate, and not the Government, will be the other party to whatever agreement is made.

■ **WOOL EXPORTS.**—The Argentine wool exported since October, 1921, up to July amounted to 402,526 bales, as compared with 192,883 bales for the corresponding period of 1920–21.

HIDE SHIPMENTS.—Hide shipments for the first six months of 1922 totaled 3,120,000, as compared with 1,472,000 for the corresponding period of 1921. (*U. S. Commerce Reports.*)

BAHÍA BLANCA CHANNEL.—The dredging of the central channel of the Bahía Blanca estuary to a depth of 33 feet is nearing completion. Only 600 meters of the total length of 1,500 meters remains to be dredged. This channel will facilitate the entrance of vessels to Puerto Militar, and Ports White and Galván. (*U. S. Commerce Reports.*)

FOREIGN TRADE.—According to the President's message of July 6, the foreign trade of the Republic in 1921 is estimated at 990,000,000 gold pesos, the imports estimated according to tariff value being 320,000,000 gold pesos and exports, according to average market quotations, 670,000,000 gold pesos.

BOLIVIA.

AGRICULTURAL PRODUCTS OF SANTA CRUZ DEPARTMENT.—Live stock in Department: Cattle, 279,000; horses, 34,500; sheep, 14,900; hogs, 59,600. Annual farm produce (arrobas): Sugar, 268,000; rice, 275,000; coffee, 35,100; maize, 253,000; cereals, 163,000. Export products: Rubber (kilos), 220,000; liquor (liters), 436,600; hides and sole leather (number), 34,400. This statement was published as of May 20, 1922. Such minerals as gold, copper, iron, lime, petroleum, and salt have been mined in a limited way, and hardwoods, cotton, forage, and other products for which the Government has no official statistics have been gathered.

NEW RADIO STATIONS.—The new radio stations in the southeastern part of the Republic have been completed and tested out with the stations in the northeast. The new stations are at Yacuiba and Esteros.

BRAZIL.

HYDROELECTRIC PLANT IN THE STATE OF RIO.—The President of the Republic has approved the plan for the utilization of the Falls of Mambucaba, on the dividing line between the States of Rio de Janeiro and São Paulo, for the purpose of supplying hydroelectric energy for a number of public services belonging to the Union. This plan involves the reservation by the Federal Government of an area of 12,228 hectares of land.

PURCHASE OF BRAGANÇA RAILROAD BY THE FEDERAL GOVERNMENT.—By decree No. 15562, of July 12, 1922, Dr. Epitacio Pessoa, President of the Republic, has opened a credit of 17,000,000 milreis paper, and 12,775,000 in Federal bonds for the purchase of the

Estrada de Ferro de Bragança. This road belonged to the State of Pará. The road is to be incorporated with the lines belonging to the Union, but will be leased to the same State. The price of the sale was 17,000,000 milreis.

TAX ON COUPONS CALLING FOR PRIZES.—By decree No. 15524, of June 14, 1922, the President of the Republic approved regulations for the collection of the tax of 30 reis per unit on coupons calling for prizes. The rules apply to orders calling for prizes distributed by manufacturers and merchants, whether fastened to the containers of goods or placed inside the same, or constituting the said containers, and whether in the form of coupons, labels, or any other, distributed directly or indirectly by means of drawings or prizes, and intended to be redeemed in money or in exchange for any kind of articles.

PROVISIONAL GUARANTEE FOR INVENTIONS AT THE EXPOSITION.—See page 401.

CHILE.

HIGHWAY APPROPRIATION.—The highway appropriation for the present year is as follows: Labor and material, 5,825,739.57 pesos; machinery and tools, 685,380.33 pesos; personnel, 342,689.99 pesos; total, 6,853,809.89 pesos. Some smaller sums will be added for departments not yet provided for.

NATIONAL LOOMS.—A new factory has been equipped with looms invented by a Chilean. This same model has been adopted by the Government for the vocational and normal schools of the Republic, where students are required to learn its use, in order that after graduation they may in turn instruct families, since weaving is well adapted to become a home industry.

RIVER, HARBOR, AND WATERWORKS APPROPRIATION.—The sum set aside for 1923 is 4,025,000 pesos, divided as follows: 80,000 pesos for safeguarding towns; 50,000 pesos for dredging the Toltén and Bueno Rivers; 60,000 pesos for repairing docks and wharves; 150,000 pesos for drinking water for Ancud and 400,000 pesos for Pisagua; 2,200,000 pesos for finishing the wharf of Arica and 300,000 pesos for that of Punta Arenas.

ELECTRIC STATION.—It is expected that the end of the year will see the completion of the Santiago station which receives the 110,000-volt current from the great dam and station at Maitenes, transforming it to 550 volts, and distributing it for the light and street railway service of the capital and the service of the electrified railroad between Santiago and Valparaíso. (Previous numbers of the BULLETIN have mentioned the beginning of these great electrical projects.) Temporary arrangements have been made for the utilization of the current while the station is in course of erection.

EXPORTATION OF FRUIT.—In connection with the interest aroused in the exportation of fruit to the United States, it may be noted that

Chilean fruit growers are considering still other fields. A trial shipment of grapes to France met with excellent success, while apples have arrived in England in good condition.

COLOMBIA.

FOREIGN TRADE.—The foreign trade of the Republic for the first quarter of 1922 amounted to 85,706,771 kilograms of exports, worth 12,947,113 pesos, and 33,598,803 kilograms of imports, worth 8,807,570 pesos, the favorable balance, therefore, being 52,107,968 kilograms, worth 4,139,543 pesos.

AEROMOBILE INVENTOR.—Dr. Manuel Mantilla Ordóñez, recently returned from the United States, has invented what he calls an aeromobile, a combination of aeroplane, dirigible, and automobile features. The machine is operated with a new gas. It is supposed to have a speed of from 1 to 80 miles an hour, and flies at a low altitude, from 30 to 40 meters.

BOGOTÁ-CÚCUTA AIR MAIL.—The biplane *Bolívar* has recently been bought from the Compañía Bogotana by a purchaser who hopes to establish air service between Bogotá and Cúcuta with mail deliveries in the Departments of Boyacá and Santander.

RAILROAD CONGRESS.—The Society of Colombian Engineers has decided to call a railroad congress to discuss plans for a country-wide railroad system and the bills to be presented to Congress for its development.

COSTA RICA.

MEXICAN VESSEL.—The *Chihuahua* was the first of the Mexican merchant vessels to arrive at Puntarenas. Its arrival from San Francisco had been scheduled for September, but the trip was made in July. This ship, with the other Mexican vessels of 6,000 tons, will make the Central American ports, while those of greater tonnage will go to Argentina and all Pacific ports.

PUBLIC UTILITIES.—San Joaquín de Flores in the Province of Heredia is soon to be supplied with water mains; the inhabitants are bending every effort toward the collection of sufficient funds to complete the work. The towns of Hatillo and San Sebastián will install telephone systems, for which each township will pay half of the total cost. Plans are also to be made for the installation of a new electric power plant in the municipality of San José.

ALL-AMERICA CABLE.—On July 1 Costa Rica, with the opening of new cable facilities, was placed in direct communication with Washington, New York, Galveston, Tex., Mexico, Guatemala, Salvador, Cuba, Nicaragua, Panama, Colombia, Cuba, Porto Rico, Ecuador, Perú, Bolivia, Chile, Argentina, Uruguay, Brazil, and all European nations. The Costa Rican agent of the All-America Cable Co.

invited the President of the Republic, his cabinet, the American Minister, the American consul, members of the diplomatic corps and others to be present at the opening of the cable. The congratulatory messages of the President of Costa Rica and the President of the United States were sent and received within a few minutes. The Costa Rican Minister in Washington sent a message of congratulation to the President of Costa Rica. President Acosta also sent a message of congratulations to the president of the cable company.

CUBA.

1921 CUBAN FOREIGN TRADE.—

[In United States dollars.]

	Imports.	Exports.		Imports.	Exports.
United States.....	265, 548, 658	222, 541, 281	United Kingdom.....	17, 128, 166	27, 232, 572
Other American countries.....	23, 391, 239	5, 732, 895	Other European countries.....	6, 750, 039	4, 441, 235
Germany.....	5, 374, 980	458, 392	Other countries.....	15, 231, 749	10, 338, 602
Spain.....	13, 654, 172	2, 480, 288			
France.....	9, 356, 096	4, 905, 475	Total.....	356, 435, 099	278, 130, 740

The above figures do not include money. (The Cuba Review, July, 1922.)

ANTILLA TELEPHONE SERVICE.—In May, telephone service was installed in the town of Antilla in the Province of Oriente, 516 miles from Habana. One hundred subscribers are connected with the local office and can talk not only in their neighborhood but may call the capital or the United States. Ten years ago Antilla was but a small village, while now it has grown to be a port for the United Fruit Co. ships and is becoming more important with each improvement in communication and transportation.

DOMINICAN REPUBLIC.

NEW ROADS.—Hundreds of workmen are engaged in constructing the road from San Cristóbal to Bani, and work is being energetically pushed on the Samaná-Sánchez highway also.

DOCK REPAIRS.—The following sums have been appropriated for repairs to Government docks: Monte Cristy, \$4,000; San Pedro de Macorís, \$3,000; and Barahona, \$2,700.

ECUADOR.

QUITO-ESMERALDAS RAILWAY.—Press reports state that a 10,000,000-sucres syndicate is to be formed in Ibarra to build the Quito-Esmeraldas Railway.

COASTWISE TRADE.—Recently the vessel *Cristobal Colón* has been acquired and placed under the Ecuadorean flag to make trips to the Galápagos Islands, which belong to Ecuador. The owners are trying to secure another larger vessel to use in coastwise trade, as most

of this is at present carried by foreign ships. It is also reported that a large company is to be established with Ecuadorean capital to engage in shipping between Ecuadorean and other South American Pacific ports.

SPANISH MANUFACTURES EXHIBIT.—The Spanish Chamber of Commerce of Ecuador has planned to hold an exhibition of Spanish manufactures on October 12, 1922, in which will be products of the firms of Barcelona, Bilbao, Seville, and Valencia, minerals from Asturias, and products from the Galician rivers and the fields of Aragon. Other sections of the exposition will contain manufactures of Spanish firms in Ecuador.

EXPORTS THROUGH GUAYAQUIL IN 1921.—The total exports through the port of Guayaquil in 1921 were 965,535 pieces of freight weighing 60,152,388 kilos, valued at 26,320,924 sucres. The export duty, including the local tax, was 3,204,268.65 sucres.

CACAO DISEASE.—A commission of cacao planters recently visited the plantations in Balao where a parasitic disease is attacking the cacao tree, causing great damage. They are interested in finding as soon as possible an effective means of destroying this plague. It is known locally as *Escoba de Brujas*, or witches' broom.

EXPORT LICENSE.—See page 402.

GUATEMALA.

AGRICULTURAL LIBRARIES.—The Minister of Agriculture is establishing agricultural libraries in all the Departments to spread knowledge of modern methods of farming among the rural population. A number of standard works on agriculture have already been sent out, and magazines and the commercial and statistical bulletins of the International Agricultural Office in Rome are also to be sent to the various libraries.

WATER SUPPLY.—The canton of La Nueva Reforma on June 30 opened its new drinking water supply to public use.

COFFEE GROWERS MEETING.—The coffee planters of Guatemala City, with plantations in the neighboring country, held a meeting on July 6 to consider the question of labor, as last year about 100,000 quintales of coffee, it is said, were not gathered, owing to the nonfulfillment of labor contracts.

ROADS.—A contract has been let for the surveying of a road to run from Santa Catarina Ixtahuacán to Parraché in the Department of Suchitepéquez. The dockage tax, collected by the Livingston customs, will be used for the construction of a road from Pancajché to Cobán.

HAITI.

COFFEE.—Coffee is by far the most valuable agricultural product of Haiti, and commands a high price in New York and in Europe. A

large amount of the crop is exported to Europe. On account of drought the crop this year was only three-fourths of normal. Over 60,000,000 pounds were exported in the fiscal year 1920.

HONDURAS.

TELEPHONE SERVICE.—The telephone line between Tegucigalpa and Yuscarán, recently put into service, is said to have caused a notable increase in the business between the capital and smaller city.

CAPITAL-TO-COAST ROAD.—An inspection trip made over the road from Tegucigalpa to Potrerillos via Lake Yojoa showed that the Siguatepeque-Pito Solo road is in good condition, with the exception of some repairs to be made to bridges. There is a regular launch service on the lake for passengers and draft animals. The Troy road is being repaired, and repairs are to be made in the stretch from Jaral to Potrerillos.

RAILROAD EXTENSION.—The President has approved the plans for extending the railroad (Ferrocarril Nacional) from Potrerillos to Río Blanco, a distance of 23 kilometers.

AGRICULTURAL SCHOOL.—See page 407.

MEXICO.

FIBERS TO BE DEVELOPED.—In the States of Oaxaca, Chiapas, Colima, Sinaloa, and Nayarit, says the Mexican Trade News, various fiber plants grow which have never been developed commercially. One of these is the *pita* with a 2-yard fiber, as resistant as silk and almost as soft. A recent official investigation showed that nearly 6,000,000,000 tons of useful fibers go to waste annually, the *pita* alone covering an area of 131,143 square kilometers (approximately 81,490 square miles) and having a value estimated at approximately \$1,000,000 annually. Up to the present the fiber industry has not been developed even to cover all national needs. Though *ixtle* and the *sisal* or Yucatan *henequen* are well known, the *lechuguilla* and *zacatón*, which would bring an average price of \$50 a ton, aggregating about \$3,450,000 a year, have never been developed. Jute bags are still imported for sacking ore at the mines and for seeds and other products.

BUREAU OF COMMERCIAL STATISTICS.—The department of commerce of Mexico is organizing a bureau of commercial statistics to compile a census of business organizations, persons, or companies engaged in mining, vegetable raising, the production of live stock, and the petroleum and other industries. It is expected that this sort of information will enable Mexican producers and industrials to judge the condition of the market and to figure production more nearly in accordance with the demand and supply.

SAMPLE FAIR IN MEXICO.—As a feature of the festival of Covadonga a sample fair was organized and held in Mexico City in the latter part

of September to which all manufacturers and industrials, national and foreign, were invited to send their products. The fair is to be held each year, and it is hoped that eventually it will become a large exposition similar to the Barcelona sample fair.

CABLE SERVICE.—The Mexican Submarine Cable Co. has opened a new service between Mexico and the Central American Republics, sending deferred messages (similar to day messages) and week-end telegrams. Deferred messages are sent within 24 hours after receipt at the sending station for half price, while week-end messages are sent before the end of the week at very low rates.

COURSE IN CANNING AND FRUIT PRESERVING.—The agricultural bureau in San Jacinto, Federal District, on August 14 opened its eighth course in fruit and vegetable preserving and canning. This three months' course is free.

MAIZE CULTIVATION.—The department of agriculture has opened a contest for the best pamphlet on the raising of maize, to be between 100 and 200 pages long, with illustrations. The contest ends on December 31, 1922. A prize of 500 pesos will be awarded to the winner, also 500 copies of the pamphlet and the rights of publication of future editions.

PIEDRAS NEGRAS BRIDGE.—A new international bridge between Mexico and the United States is to be built at Piedras Negras, Coahuila, at a cost of 300,000 pesos.

MINERALS.—According to the department of mines of the Ministry of Industry and Commerce, the first six months' production of minerals in 1922 was: Silver, 1,195,355 kilos, and gold, 11,145 kilos, or 252,637 kilos more silver and 984 kilos more gold than in the first six months of 1921.

NICARAGUA.

COTTON CULTURE.—The Chamber of Commerce of Chinandega has brought to the attention of the Minister of Promotion the advanced price of cotton and the fact that Salvador and Mexico are said to have been producing a fine grade which gins 33 per cent. The minister is to take up the question of better seed, as the present grade of Nicaraguan cotton does not give a high yield.

BUTTER EXPORTED TO COSTA RICA.—Butter exports to Costa Rica are finding a good market. A late shipment consisted of 100 tins, and other orders are waiting to be filled.

LEÓN-PONELOYA ROAD.—A road is being built from León to the seaside town of PoneLOYA. Government aid being given to the local highway commission.

1921 AND 1922 EXPORTS.—The estimate of Nicaragua's 1922 coffee crop, says Consul General Playter of Corinto, was 160,000 quintals; during the first four months of this year the amount exported was

13,843 quintals (1 quintal=101.43 pounds). The coffee exports for 1921 totaled 298,754 quintals. From January through April, 1922, Nicaragua exported over 8,000,000 kilos of sugar as compared with a total of over 12,000,000 for 1921. As the estimated crop for 1921-22 was about 13,500,000 kilos, the quota of 60 per cent which can be legally exported has practically been reached. Other exports from the west coast of Nicaragua, such as hides, skins, corn, beans, cacao, and lard, during the first four months of 1922 exceeded the ratio for the year of 1921.

Estimates for the 1922-23 bean crop place it at 250,000 to 300,000 quintals as against 160,000 quintals for 1921-22. Estimates for the 1922-23 sugar crop are 250,000 quintals, as compared with the approximate crop of 300,000 quintals of this season.

Cattle prices have increased and exports are being made through Costa Rica to Cuba.

Reduction of railroad fares has given an impetus to the hardwood and timber industry of the west coast, and exports of 8,000 to 10,000 tons of mora (yellow dyewood), logwood, lignum-vitæ, and rosewood are anticipated, mostly during the slack season for coffee and sugar. (*United States Commerce Reports.*)

PANAMA.

ROTARIANS AND ROADS.—As a further manifestation of their interest in good roads, the Rotarians of Panama are to provide tools for the repairs on the Chepo road.

PERU.

WHOLESALE PRICES.—The index numbers for wholesale prices, as quoted by Continental from the figures of the bureau of statistics, are as follows: 1913, 100; 1914, 104; 1915, 120; 1916, 146; 1917, 175; 1918, 212; 1919, 220; 1920, 238; 1921, 205.

The following figures are given for various items:

	Meats and fats.	Cereals and dried vegetables.	Beverages and mis- cellaneous.	Total foodstuffs.
1913.....	100	100	100	100
March, 1921.....	206	198	241	213
December, 1921.....	167	179	212	184
March, 1922.....	173	179	210	186

LEGUIA TRAIL.—The Leguia trail, 5 feet wide, says a writer in The West Coast Leader, is being cut from San Luis de Shuaro, on the Paucartambo River, to Los Lorenzos, on the Pichis River, in the eastern part of Peru, just below its junction with the Aporoquiali River, over the San Matías Mountains and across the fertile valleys

of the Palcazu, Cacazu, and Autaz. Since it follows the gravelly hillsides, it will not be affected by rains, and will make possible in 3 days a trip now consuming 8 or 10. The work is being pushed forward energetically under an able leader.

The Amuesha Indians, who inhabit this region, raise not only rice, maize, and bananas, but fowls of different kinds. In the virgin forests there are many species of trees valuable for their wood and for other products, such as vegetable ivory, copal (used for making varnishes), and copaiba balsam (a medicinal oil).

ROADS.—From Dos de Mayo roads are being constructed, under the highway conscription law, to Cerro de Pasco, Huarás, and Huánuco, while the roads from Trujillo to Salaverry and from the former to the Province of Pacasmayo are also receiving attention.

SALVADOR.

ELECTRIC LIGHT.—Chilamatal is to have electric light for its streets and houses, furnished by current from the San Lorenzo plant in Quezaltepeque.

HIGHWAY.—See page 403.

URUGUAY.

RICE.—A new firm has set up in Montevideo machinery for preparing rice for market.

EXPORT OF LIVE CATTLE.—A commission representing the Rural Association of Uruguay, the Rural Federation, the National Production Council, and similar interests has been studying a plan for forming a cooperative society with the object of exporting cattle on the hoof.

STOCK SHOW.—The latter part of August the Rural Association of Uruguay held a successful stock show in Montevideo. Only animals bred in the country were eligible for exhibit. In another section machinery and tools used in agriculture and stock raising were shown.

CATTLE TICK FILM.—Under the auspices of the Rural Federation a film showing how the cattle tick was eradicated in the southern part of the United States has been exhibited in Durazno and other cities.

ELECTRIC POWER.—The rates charged by the State power plants are as follows: 1 to 1,000 kilowatt hours, 5.5 centavos; 1,001 to 5,000 kilowatt hours, 4 centavos; 5,001 to 10,000 kilowatt hours, 3.5 centavos; 10,001 kilowatt hours and upward, 3 centavos.

TRAVELING INSTRUCTOR.—See page 410.

VENEZUELA.

FOREIGN TRADE.—According to the report of Consul S. J. Fletcher, of La Guaira, the Venezuelan foreign trade for the first six months of 1921 was: Imports, 32,662,252 kilos, worth \$9,533,702; and ex-

ports, 166,960,027 kilos, worth \$12,940,344. Unofficial reports set the foreign trade for the entire year of 1921 at 72,910,726 kilos of imports, worth \$18,454,116, and 381,453,382 kilos of exports, worth \$25,775,291.

ECONOMIC^{AND} FINANCIAL AFFAIRS

ARGENTINA.

CITY AND NATIONAL FINANCES.—The following facts were given in the message of the President read before Congress on July 6, 1922:

The revenues of the municipality of Buenos Aires amounted to 67,740,768.11 pesos, or a surplus of 40,768.11 over the estimated revenue. The consolidated and floating debt of the municipality amounts to 118,306,827.42 pesos, demanding annual interest, amortization and other expenditures totaling 14,367,108.47 pesos, which are promptly paid. The good financial condition of the municipality has enabled it to carry on public improvements such as paving and lighting not only in the heart of the city but also in outlying districts.

The Banco de la Nación in 1915 had deposits amounting to 598,000,000 paper pesos and discounts and advances amounting to 498,000,000 paper pesos, while in January, 1922, the deposits amounted to 1,300,000,000 paper pesos, and the discounts and advances to 887,000,000 paper pesos.

The actual revenue of the Government for 1921 was 435,880,683 pesos in cash (budget), proceeds of bonds previously authorized, 30,455,847 pesos, and part of the net proceeds of the \$50,000,000 United States loan, 29,505,257 pesos, making a total actual revenue of 495,841,787 pesos.

(The issue of bonds to the extent of 60,000,000 pesos which was intended to meet expenditure on public works has not so far been made.)

The expenditures for 1921 were as follows: Budget, 486,927,000 pesos; special loans, 7,096,000 pesos; cabinet authorizations, 56,483,000 pesos; transfers from previous years, 13,794,000 pesos; loss on remittances, 4,400,000 pesos; finance for public health works, 8,250,000 pesos; total, 558,950,000 pesos.

The consolidated debt of the nation on December 31, 1921, amounted to 1,217,690,026 pesos national currency after deducting 60,000,000 pesos in bonds still unissued. During the year the debt was amortized to the extent of 39,743,860 pesos. The unconsolidated debt, made up of short-term loans, treasury bills, and credits in

current accounts, amounted to 558,360,189 pesos national currency. (*Review of the River Plate, July 14, 1922.*)

BOLIVIA.

LOAN OF \$24,000,000.—A loan of \$24,000,000 has been made to the Bolivian Government by American bankers. The bonds are dated May 1, 1922, and run 25 years, bearing 8 per cent interest. The price was 101 and accrued interest. They are now callable for 15 years, are redeemable at 105 and accrued interest. They are secured by import and export duties, certain taxes and other Government revenues and a first mortgage upon the Atocha-Villazón Railroad, now under construction, and the Potosi-Sucre Railroad, about to be constructed, together with a pledge of the net income of such railroads. A fixed annual service equal to 10 per cent of the largest amount of bonds at any time outstanding will provide for the amortization of this issue. Proceeds of the loan to the extent of \$19,000,000 will be issued for refunding purposes and for railroad and highway construction, and \$5,000,000 with \$2,000,000 not to be delivered until January 1, 1924, for exchange for a like amount of railroad loan bonds of 1922. Of the total amount of \$33,000,000 authorized by Congress, the remaining \$7,000,000 will be reserved for issue to provide for the completion of the railroads already mentioned.

PROFITS TAX.—On May 18, 1922, the President issued a decree defining the manner of paying the 5 per cent profits tax on commerce. The decree states that commercial firms with one or more agencies in different cities or parts of the Republic shall pay the 5 per cent profits tax on the whole business for the year through the main office of the business. The branches or agencies are obliged to register, however, even when operating with a capital under 5,000 bolivianos, with the tax-list census of business in the administration department of the internal revenue of the district where the business is located, and to fulfill all the requirements of the law. The full text of this decree is published in the *Boletín Comercial* of June 5, 1922.

BRAZIL.

BANK AGENCIES.—The Banque Française et Italienne pour l'Amérique du Sud has been authorized to open agencies at São Manoel, Amparo, Franca, and Itapetininga, in the State of São Paulo, and at Rio Negro, in the State of Paraná.

CHILE.

BANK BRANCHES.—The Bank of Chile intends to open new branches in San Antonio, Río Bueno, Linares, San Javier, and Santa Cruz.

COLOMBIA.

BUDGET.—The National budget fixes the estimates of revenues from January 1 to December 31, 1922, at 23,903,580.68 pesos and

the expenditures at 28,211,822.37 pesos. The special budget of public credit for the fiscal year from January 1 to December 31, 1922, is fixed at 7,001,190.96 pesos, to be used for the emission and conversion of various securities of the public debt. The full text of the decree is given in the *Diario Oficial* of May 1, 1922.

COSTA RICA.

BUDGET FOR 1922.—The items of the budget for 1922 are as follows: Legislative branch of the Government, 260,000 colones; judicial branch, 555,300 colones; government and police, 1,719,244 colones; promotion, 2,870,111.40 colones; foreign relations, 851,391.95 colones; justice, 54,072 colones; Religion, 46,000 colones; charity, 356,387 colones; public instruction, 2,614,647.36 colones; war and military police, 1,711,810.08 colones; navy, 40,720 colones; treasury, 2,106,550 colones; mails, 171,110 colones; telegraphs, 463,278 colones; Pacific Railroad, 1,631,661 colones; and roads, highways, and bridges, 556,320 colones.

OFFICE OF CONTROL OF EXPENDITURES.—See page 402.

HAITI.

ADDITION TO BUDGET.—The sum of \$134,737.42 was appropriated in July for supplementary credits in connection with the budget, divided among various departments; the largest item, \$66,467.00, is allotted to public roads. Extraordinary credits are also extended, as follows: Department of the interior, unforeseen expenses, \$9,317.76; foreign relations, delegation expenses, \$4,000; public works, digging of artesian wells at Cape Haitien, \$10,000; finance, \$100,000, to be converted into nickel for use until September and returned beginning in October.

GOVERNMENT RECEIPTS.—The receipts from domestic taxes from October 1, 1921, to April 30, 1922, amounted to 364,836.76 gourdes and \$100,187.71.

HONDURAS.

BUDGET.—According to the *Gaceta Oficial* of Honduras the revenue for the year 1922-23 was calculated at 7,299,032.04 pesos after deducting the costs of collection and other expenses, the expenditures being reckoned at the same sum. The two largest sources of revenue were the customs and monopolies, which were expected to produce 3,777,812.04 pesos and 2,247,020 pesos gross, respectively. The sums assigned to the Government departments are as follows: Department of the interior, 1,225,275.80 pesos; department of justice, 305,627 pesos; department of foreign relations, 293,268.80 pesos; department of instruction, 742,820 pesos; department of public works and agriculture, 1,437,916 pesos; department of navy and war, 2,126,010.94 pesos; department of treasury, 604,113.50 pesos; department of public credit, 564,000 pesos.

MEXICO.

RECEIPTS AND EXPENDITURES.—Statistics from the office of the comptroller show that the receipts for the first five months of the year 1922 amounted to 90,468,781 pesos, of which the sum of 14,546,198 pesos was collected as the tax on petroleum. Not all of the petroleum tax is shown in the receipts, as the stamps for payment by certain producers had not yet been canceled. The tax on foreign trade was 26,025,744.73 pesos; general taxes, 45,113,047.75 pesos; public services, 6,837,712.18 pesos; real property, 242,081.69 pesos; various taxes, 12,045,459.04 pesos; and the centenary tax, 22,725.71 pesos. The expenditures of the Government during the same period amounted to 98,950,604.75 pesos.

PERU.

GOLD BOND OFFER.—A firm of American bankers has offered \$2,500,000 worth of Republic of Peru 10-year external secured 8 per cent gold bonds. These bonds are a direct obligation of Peru and are secured by a first lien on the taxes of the petroleum industry. The bonds are offered at 100 and accrued interest.

SALVADOR.

BANK CONCESSIONS EXTENDED.—See page 403.

URUGUAY.

SHORT-TERM LOAN.—The executive was authorized on June 30 to contract a short-term internal loan, not to exceed 2,300,000 pesos, to be used for budget expenses, the domestic debt, and other obligations.



BRAZIL.

PROVISIONAL GUARANTEE FOR INVENTIONS AT THE EXPOSITION.—Dr. Epitacio Pessoa, President of the Republic, has issued a decree (No. 15539, of June 28, 1922), providing that authors of inventions or industrial discoveries exhibiting at the national exposition of 1922 shall have their rights guaranteed during a period of 12 months, provided they previously file a petition, accompanied by the proper paper, with the director general of industry and commerce, and provided further that they do not use the invention industrially before securing the patent.

CHILE.

LEGATIONS RAISED TO EMBASSIES.—Law No. 3859 of June 10, 1922, raised the legations of Chile in Argentina and Brazil to the rank of embassies. The Senate later approved the President's message designating as Chile's first ambassadors to the two neighboring Republics the diplomats holding the post of minister in those countries: Sr. Luis Izquierdo, in Argentina, and Sr. Miguel Cruchaga, in Brazil.

COSTA RICA.

OFFICE OF CONTROL OF GOVERNMENT EXPENDITURES.—On May 20, 1922, President Acosta signed decree No. 8, establishing an office of control of expenditures of Government funds. The members of this commission are to be a chief appointed by Congress and the necessary assistants. The chief of this office must offer a bond of 20,000 colones to the State for his integrity, and can hold no other remunerative office from the Government.

The office of control will cooperate with the Ministry of the Treasury, especially in regard to the budget, and will have oversight of all Government employees, especially for the purpose of seeing that positions are filled by competent persons. No check on the national treasury will be honored without the seal of the respective bureau chief and the approval of the Minister of Finance and the chief of the office of control. Other duties include the auditing of Government collections and general supervision of its financial affairs.

DOMINICAN REPUBLIC.

BANKRUPTCY LAW.—The *Gaceta Oficial* for July 8, 1922, contains the text of the bankruptcy law in both Spanish and English.

ECUADOR.

EXPORT LICENSE.—According to a presidential decree signed June 10, 1922, all exporters, national or foreign, must request from the customs official of their shipping port an export license for the shipment of goods, which will be issued upon the delivery to the collector of customs of drafts on foreign cities for 70 per cent of the value of the merchandise to be exported. These drafts will be paid by the customs collector at the rate of exchange fixed by the executive decree of November 24, 1921. When the drafts are long-term, they will be discounted at 6 per cent annual interest. The collector of customs is required to obtain shipping documents as a guaranty of the drafts. The full text of the decree is published in the *Registro Oficial*, June 10, 1922.

GUATEMALA.

HOSPITAL SUBSIDY.—The Government on June 26, 1922, in decree No. 1193, apportioned from the 15 pesos tax per bottle of spirituous liquor consumed in the Departments, 2 pesos to the municipalities and 1 peso to the support of hospitals already built or being built in the Departments where the tax is collected or to hospitals serving the Departments which have no hospitals.

PANAMA.

PASSPORTS.—On January 18, 1922, the President issued decree No. 62, to the effect that every Panaman, under his rights of citizenship, is entitled to receive gratuitously a passport from the Ministry of Foreign Relations or from the Panaman diplomatic agents and consuls in foreign countries, provided he can furnish identification, such as certificate of baptism or certificate from the civil registry of individuals. Lacking these documents he must be able to prove his identity and nationality by competent witnesses. Passports will not be valid more than two years but may be renewed. The full text of the decree is to be found in the *Gaceta Oficial* of February 1, 1922.

PERU.

PETROLEUM TAX.—Law No. 4498, of March 1, 1922, fixes the export tax on petroleum, its components, its distilled derivatives, and similar hydrocarbons at 3.50 soles per metric ton net weight. This tax is not to be increased for 20 years.

SALVADOR.

HIGHWAY.—Arrangements have been made for the building of the automobile road in the Department of Usulután from the city of Berlin through the towns of Algeria, Santiago de María, and Jucuapa to Usulután. A legislative decree published May 9, 1922, made final provisions for the building of this road by a commission appointed by the President, working under the supervision of an engineer of the department of promotion. The cost of the road is to be defrayed by the 20-centavo tax on each quintal of coffee from the eastern district passing through the port of La Unión, in accordance with an earlier decree.

BANK CONCESSIONS EXTENDED.—A legislative decree signed on May 9 extended the concessions of the Salvadoreño Occidental and Agrícola Banks to December 31, 1950. They thus preserve their character as banks of issue until that date.

URUGUAY.

HIGHWAY AND RAILROAD COMMISSION.—A commission of this name, composed of nine engineers, has been appointed to formulate

a general plan of communications, including railroads, highways, bridges, and ports, such as will best promote national commerce and the movement of products. The commission is also expected to propose a method for financing its plan, to lay down the technical bases for construction, and to draw up an outline for obtaining transportation statistics.

VENEZUELA.

NEW CONSTITUTION.—The draft of the new constitution of Venezuela, having been ratified by the State legislative assemblies, was passed by the Congress and published on June 19, 1922. This constitution nullifies the constitution of June 13, 1914. The full text is published in the *Gaceta Oficial* of June 24, 1922.



INTERNATIONAL TREATIES

ARGENTINA-URUGUAY.

CONVENTION REGARDING AERIAL NAVIGATION.—This convention was signed in Buenos Aires on May 18, 1922. (*Diario Oficial, Uruguay, June 24, 1922.*)

BRAZIL.

INTERNATIONAL COPYRIGHT CONVENTION.—By decree No. 15530, of June 21, 1922, Dr. Epitacio Pessoa, President of the Republic, promulgated the international convention for the protection of literary and artistic works, signed in Berlin November 13, 1908, and ratified by the National Congress, said ratification having been sanctioned by presidential decree No. 4541, of February 6, this year. (*Diario Oficial, June 29, 1922.*)

COSTA RICA-GREAT BRITAIN.

ARBITRATION CONVENTION.—Congress approved on May 17, 1922, and the President signed on May 23, 1922, the arbitration convention with Great Britain signed by the plenipotentiaries January 12, 1912, in the matter of the concession granted by the Aguilar-Amory contract, now belonging to the Central Costa Rica Petroleum Co., and the payment of 998,000 colones made by the Royal Bank of Canada, in payment of a check drawn by the Tinoco Administration on the Banco Internacional of Costa Rica. This convention names as arbitrator the Chief Justice of the United States of America.

SALVADOR.

PAN AMERICAN POSTAL CONVENTIONS.—On April 26, 1922, the President signed the legislative decree ratifying the following Pan American postal conventions originating in the Congress of Buenos Aires in 1921: Principal convention, its protocol and regulations; the parcel post convention, its protocol and regulations; and the postal money order convention. (*Diario Oficial, Salvador, May 5, 1922.*)

PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

TRADE SCHOOL.—In Ingeniero Maschwitz (Las Conchas) the corner stone of a trade school for the benefit of orphans and deserted children was laid in the middle of July.

SCHOOL OF APPLIED ARTS.—The president of the Department of Cordoba has signed a decree authorizing the foundation of a school of applied arts and trades. The school will include in its courses elementary studies in geometry, lineal drawing, design, architecture, the history of architecture and the study of the different styles. Special courses will be given in decoration, decorative sculpture, cabinet work, wrought-iron work, architecture, illustration, and engraving.

BOLIVIA.

TEACHERS' CONVENTION.—The Minister of Public Instruction in Bolivia has called a teachers' convention to meet in October for the discussion of the following questions: Methods of teaching; school libraries and popular lectures, compulsory trade education in Government schools; free secondary education; boarding scholarships for workmen; education for the indigenes; similar educational systems for countries signatory to educational treaties; pensions for teachers; national savings and insurance fund for teachers and children, and other subjects.

BRAZIL.

REPORT OF DIRECTOR OF INSTRUCTION OF FEDERAL DISTRICT.—From the report submitted to the prefect, Dr. Carlos Sampaio, by the director of public instruction, Dr. Ernesto do Nascimento Silva, are taken the following figures:

There are 402 public primary schools in the Federal District, of which 328 are day schools, 72 night schools, and 2 kindergartens. These schools are located in 352 buildings, of which 177 are rented, 69 belong to the city, 3 to the Federal Government, and 3 are donated by individuals. In the year 1921 there were 2,453 teachers of all classes, the great majority of whom were women. In 1920, the primary day schools had a maximum registration of 74,428 pupils. The average attendance was 46,155 pupils. In 1921 the registration reached 77,608, while the average attendance was 47,428 pupils. In the night schools in 1920 the registration was 6,498, and the average attendance 2,582, while in 1921 the registration reached 7,628, and the average attendance 2,967.

In 1921 the school physicians made 5,052 visits, and examined 21,376 pupils; ordered the withdrawal of 720, and vaccinated and revaccinated 44,388. They also examined 1,221 teachers and ordered the withdrawal of 34. Besides the regular public schools the prefecture subsidizes a number of schools owned and directed by associations.

CHILE.

EVENING SCHOOLS.—In Santiago almost 400 men and women are enrolled in the evening courses of the School of Fine Arts. They are studying wood carving, casting, various branches of drawing, and other subjects of applied art.

An evening school for working women is maintained by the Association of the Practice High School Students and Alumni. In addition to the regular subjects of the school program, instruction is given in civics and social hygiene. Graduates are eligible to enter the evening high school for girls.

COSTA RICA.

PSYCHOLOGICAL TESTS.—The bureau of pedagogical investigation has recently planned to establish a laboratory of experimental psychology, which would make psychometric and anthropometric tests. Equipment has been ordered from Germany at a cost of \$500.

TREE WEEK.—In July Costa Rica had a tree week. The third year normal students of the Heredia School carried out with the assistance of the other classes an Arbor Day program which included the national anthem, addresses, and the recitation of the *Hymn to the Tree*, written by Gabriela Mistral. All the schools had special lessons on the tree and papers and magazines published articles and poems on trees.

EDUCATION BOARD.—A national board of education of five members has been legally established to meet twice a month to manage the economic side of public education. This board has charge of the

collection of revenue, expenditures, purchase of school sites, books and equipment, distribution of funds to the local education boards, and other similar affairs.

CUBA.

SAN VICENTE DE PAUL INSTITUTE.—The fiftieth anniversary of the Institute of San Vicente de Paul, an asylum and trade school, located in Habana, was celebrated on July 28. This institution was founded by the Jesuits and for many years has aided the poor of the city to receive education. The buildings are spacious, with all sanitary improvements, containing lecture halls, workshops, a linotype room, a printing shop, and a cardboard box factory. There is a girls' section and one for boys where the children are taught useful trades besides receiving a primary education as high as the seventh or eighth grade. The cardboard boxes made in this school are of all sorts, for medicines, bonbons, and other special uses.

KINDERGARTEN APPROPRIATION.—The sum of 11,781 pesos has been appropriated for special kindergarten training in 11 new classes.

ECUADOR.

LECTURE IN LAW SCHOOL.—Dr. Juan Cueva García delivered a lecture before the law school and a number of guests on the subject of "The Present University Movement in North and South America and Its Effects."

GUATEMALA.

NEW SCHOOLS.—New coeducational schools have been opened in the following towns: Patanatic, Nueva Candelaria, Pasajoc, Pancho de León, and Lo de Diéguez.

SCHOOL MAGAZINE.—In the town of Ocotepeque a pedagogical magazine called *El Índice* is to be published.

HAITI.

SCHOOL IN PORT AU PRINCE.—The Haitian Committee of the Alliance Française has opened a primary school in La Saline, a crowded district of Port au Prince. All materials were furnished, and a committee of women residing in the district has promised to see that children enrolled in the school have adequate clothing.

HONDURAS.

NEW SCHOOL.—A new school has been opened in the town of Quimistán for children from 7 to 15 years of age.

AGRICULTURAL SCHOOL.—The San José plantation in the jurisdiction of Comayaguela has been chosen as the site of the agricultural school to be established by the department of agriculture. Plans for

the school include the bringing of water for irrigation from Toncontín and an automobile service between that city and the school for professors and students.

MEXICO.

FREE SPANISH CLASSES.—The department of university exchange, under the department of public instruction, requested the services of a teacher from the primary education section to teach Spanish free to the foreign residents of the Mexican capital. The class meets in one of the rooms of the Primary Normal School for Teachers three times a week.

CONGRESS OF TEACHERS OF INDIGENES.—In September the board of indigene education and culture called a congress of its teachers who are eradicating illiteracy among the indigene population, to meet in Mexico City for the discussion of problems of their work. The program included the following topics: The appointment of many teachers for the next school year; the collection of statistics of the different Indian races, and the dialects spoken in each locality; the qualities necessary in teachers of indigenes; the gathering of indigene children of races and tribes of nomadic customs in certain districts for education; plans for the installation of permanent exhibition of native industries; studies of books suitable for use in schools for indigenes; and other subjects.

GABRIELA MISTRAL IN MEXICO.—The beloved Chilean poet and educator, Gabriela Mistral, who is admired in all Latin America, is now in Mexico at the invitation of the national ministry of public education. One of the objects of her visit was to know the spirit of Mexico and its intellectual atmosphere at first hand as well as to become acquainted with its students, and everywhere she has found a cordial welcome and reverent attention to her words.

The following gives a brief account of some of the ceremonies at which Gabriela Mistral has been an honored guest:

She arrived in Mexico City July 21, accompanied by a commission composed of Sres. Jaime Torres Bodet, Jules Jiménez Rueda, and Rafael Heliodoro Valle, sent by the ministry of education to Vera Cruz to meet her. At the station of San Lázaro in Mexico City she was met by another commission of delegates from the department of education and students from the Gabriela Mistral School. The city government held entertainments in her honor. On July 28 she visited the school named for her, reading an address which expressed her sentiments of responsibility and humility before the honor of influencing the young minds there to be educated. She dwelt upon the duty of students and teachers to preserve the spirit of idealism in the school.

On July 30 at an entertainment given in her honor by the Federation of Mexican Students she read the greeting which she brought from the Federation of Chilean Students, which spoke of the ideal of American fraternity in all Latin America and the ideal of working for the common good. The president of the Mexican Students' Federation replied to the Chilean greeting, giving thanks for the message to the distinguished messenger and declared that Mexican students had the same aims as those of the rest of Latin America's youth—fraternity and the common good. Toward the

close of the program the Chilean poet read an address tracing the unity of spirit and customs of the nations of Spanish origin, further saying that their aims should be similar; that the rise of peoples should be through their work and fraternity which increases their strength and self-respect.

On August 4, a new library of the department of public education, named after Gabriela Mistral, was formally opened. The Chilean poet and educator was present, as were the Chilean Minister, the chief of the library department of the Ministry of Public Education, and other officials. Sr. Torres Bodet, chief of libraries, spoke eloquently of the respectful love the humble feel for great writings, and said that to preserve this spirit the department of education had named each of its libraries for some great figure of human progress or ideals. He said that in recognition of that indefinable yearning which the soul has toward divine things they had named this library after Gabriela Mistral, hoping that her name would keep present the spirit of her ideals and the feeling of her presence so that those who came to read for an hour or so might be receptive to the truths preserved in the written word. Later Gabriela Mistral made a moving response to the former address in words full of that spirit of love, fraternity and peace of which she is the apostle. Her poem, "My Books," was read by Sr. Jiménez Rueda.

PANAMA.

LAW DEGREE CHANGED.—Students graduating hereafter from the 3-year course of the law school will be awarded the degree of *licenciado* of law and political science instead of *licenciado* of law alone.

PERU.

UNIVERSITY OF SAN MARCOS.—In his inaugural address Doctor Villarán, the new rector of the University of San Marcos, expressed his desire that the university students should have a new campus of extensive grounds, far away from city noises, and advocated part of the Santa Beatriz extension of Lima, now in Government hands, as an appropriate site, especially for the schools of science, letters, and pedagogy.

SCHOOL INSPECTION.—The central regional education bureau, whose jurisdiction includes Lima, will inspect school buildings and furniture as to their hygienic condition, and will give teachers a physical examination. Private schools are included in this decision.

SALVADOR.

1921 SCHOOL FACTS.—From the 1921 publication of the Ministry of Public Instruction the following facts are taken:

Of the 896 schools provided for by special decree during 1921, 803 were open, of which men's night schools numbered 68; women's night schools 89; boys' city schools 247; girls' city schools 250; coeducational city schools 13; kindergartens 5; boys' rural schools 26; girls' rural schools 19; and coeducational rural schools 156. The number of teachers was 1,554. Calculating the population at 1,330,000 inhabitants, there was in 1921 a school for every 1,392 inhabitants. The number of children of school age was approxi-

mately 212,800. The number of registrations in 1921 exceeded those of 1920 by 3,518 pupils.

URUGUAY.

CLINICS.—The department of public instruction maintains one psychiatric and three medical clinics in Montevideo.

TRAVELING INSTRUCTOR.—An agricultural expert, working under the bureau of industrial education, is traveling through the various Departments, lecturing and giving practical demonstrations. Among the subjects treated are wine and cheese making, apiculture, and fruit and vegetable canning.

VENEZUELA.

CENTRAL UNIVERSITY OF VENEZUELA.—This university after being reorganized has again been opened. It includes schools of law, medicine, mathematics and other professions, combining all the schools of higher education maintained by the State. The rector is Dr. David Lobo.



ARGENTINA.

MEDICINES FOR THE POOR.—On July 5 a new tax on toilet preparations went into effect in the Province of Jujuy, the proceeds of which are to be used to provide medicines for the poor.

TENTH INTERNATIONAL EAR, NOSE, AND THROAT CONGRESS.—Argentina was represented at this congress, held during July in Paris, by Profs. Pedro Belou and Basavilbaso and Dr. Fernando Pérez, the Argentine Minister to Austria. Prof. Pedro Belou of Argentina presented a stereoptical atlas of the anatomy of the eye which contained 500 photographs, while Prof. Basavilbaso read a paper on complications in the larynx of pneumococcic origin, as observed in the grippe epidemic of 1921.

GRANJAS DE REPOSO.—Vacation farms have been started by the association for women's rights for the benefit of teachers and children. Private individuals are to donate land along the Atlantic coast about five hours from Buenos Aires for the establishment of such farms, the purpose of which is to prevent tuberculosis and general debility and to increase health.

CANCER INSTITUTE.—The Academy of Medical Sciences has appointed two delegates to hand over the cancer institute to the University of Buenos Aires.

BRAZIL.

INSTITUTE OF CHILD WELFARE.—The Instituto da Protecção á Infancia, of Rio de Janeiro, celebrated the twenty-first anniversary of its foundation on the 14th of July last. The meeting was attended by a numerous assemblage of citizens. The official address was made by Dr. Moncorvo Filho, who related the work and progress of the institute during the 21 years of its existence.

CHILE.

WORKMEN'S HOUSES.—*La Revista de la Habitación* for March of this year mentions as the first movement of its kind the plan of the Sociedad de Artesanos La Unión to build on its own land in Santiago a number of houses for workmen, to be bought on easy terms, but with due guarantee of the capital invested and a legitimate profit.

SCHOOL CHARITY COMMITTEE.—The work of the Santiago school charity committee has three branches: Clothing for school children improperly clad; school lunches, cooked by the pupils, and free to those who can not afford to pay; and vacation colonies for convalescent or undernourished children. For the last-named purpose the schools in seaside towns, such as Viña del Mar, Quilpué, and Constitución, are utilized. Twenty-nine Santiago schools whose principals and teachers are interested in the social welfare of their pupils are covered by the work of the committee.

COSTA RICA.

COSTA RICAN CHILDREN.—The normal school of Heredia is forming a league to send sickly and undernourished children to a country home to recover their health.

An orphanage has been established in Esparta which, it is hoped, will eventually house all the homeless children of the Republic. The Ministers of Government and of Charity are interested in the project, and subcommittees have been formed in San José, Puntarenas, and Esparta.

COLOMBIA.

EIGHT O'CLOCK ORDER.—The municipality of Bogotá has passed an ordinance requiring places selling liquors or alcoholic drinks to close at 8 o'clock at night and to remain closed every holiday and Sunday. A fine of 20 pesos is to be imposed for the first infraction of this ordinance and 50 pesos for the second offense. Proprietors of drinking places shall not receive patrons under 21 years of age, the fine for

infractions of this clause of the ordinance being the same as for the first clause. The night tax on places selling food only is removed.

DOMINICAN REPUBLIC.

PRIVILEGES FOR PRISONERS.—The secretary of justice and public instruction has been authorized to establish in any prison whatever system he deems suitable, granting privileges to prisoners who are considered trustworthy. No prisoners shall be eligible to the benefits of the system who have not served at least half of their sentence.

CITY LIBRARY.—The city library of Santo Domingo will shortly be installed in the lower floor of the municipal building.

HAITI.

WAGE INCREASE.—Considering that 1 gourde a day was an insufficient wage for the 2,500 laborers employed by the department of public works, the President consulted with the chief engineer and it was decided to increase the amount to a gourde and a half. The extra funds will be obtained by the reduction of certain expenses and a supplementary credit of \$6,467.

HONDURAS.

SALVADOR FLOOD RELIEF.—Many entertainments were given for the benefit of the Salvador flood victims, one being held in Tegucigalpa July 14, by the Boy Scouts, who presented a play in the national theater.

LABORATORY TESTS.—The general hospital has a microscopic and chemical laboratory attached, in which, during June, it made 91 blood tests and other analyses.

PUBLIC HEALTH REPORT.—The director general of the public health, Doctor Brizio, reports that a new dam with a reservoir is to be built in San Pedro Sula and a sewer laid, which latter will cost \$120,000. All the improvements will be paid for by the municipality.

Puerto Cortes is to have the water supply dam repaired and a canal dug to connect the lake with the sea at Puerto Cortes. The Cuyamel Fruit Co. is to furnish about \$300,000 for this work, which it is to carry on according to the approved plans. When the sewer tax of San Pedro Sula has paid off the indebtedness for that city's improvements, the proceeds of the tax will then be used for the payment of the improvements made in the sanitation of Puerto Cortes.

In La Ceiba the Atlántida Hospital is in good condition and does good work. The Vicente D'Antoni Hospital is being constructed in the same city.

The fruit companies operating in the northern part of Honduras are to assume the cost of various works of sanitation, amounting to about \$500,000, in return for exemption from certain taxes. They

will undertake the building of these improvements with their personnel and equipment since they, as well as the country in general, will benefit greatly from the results.

PAN AMERICAN LABOR CONGRESS.—The third Pan American Labor Congress was held in Tegucigalpa on September 15. The Central American countries were invited to send two delegates each.

MEXICO.

SECOND MEXICAN CHILD WELFARE CONGRESS.—The associations already registered for participation in the Second Mexican Child Congress, January 2-9, 1923, are: National Academy of Medicine; General Directorate of Public Education in the Federal District; Mexican Biological Society; Directorate of Biological Studies; Mexican Popular University; General Directorate of Public Charity; School Hygiene Section; Society for the Protection of Children; Mexican Dental Federation; the Tampico Pro-Infancia Club and the special agricultural school of Ciudad Juárez. Many physicians, professors, and philanthropists are also registered.

FIRST NATIONAL SANITATION CONVENTION.—From June 12-17 the aforementioned convention was held in the capital. To it the sanitation and health officers of the various States were invited by the secretary of the department of public health to deliberate upon improved methods of sanitation. Resolutions were passed to press all methods tending to arrest the practice of using narcotics and harmful drugs. Recommendations were made for sums of money to be expended in designated localities for sanitation or equipment. Papers were read on different diseases which are prevalent and those which are liable to enter the country. Scientific recommendations regarding the study of diseases or conditions in localities productive of disease, and administrative recommendations such as the revision of the immigration law, were also made. The *Universal* of Mexico City for July 2 publishes a complete account.

NICARAGUA.

ASSOCIATION OF CLERKS OF COMMUNICATIONS SERVICE.—This association, formed in Nicaragua June 29, 1921, has had its statutes approved by the President, and is now ready to establish its saving, insurance, and pension funds and take up other activities.

DENTAL CLINIC.—A free dental clinic for patients is to be opened in connection with the hospital of the Oriente and Mediodía School of Medicine in Granada. It will care for patients twice a week.

PERU.

SHOP IN PRISON FOR WOMEN.—A part of the Lp. 1,000 gold appropriated for adding to the Arequipa prison for women will be used to install a spinning and weaving shop.

FIRST PERUVIAN CHILD WELFARE CONFERENCE (*Primera Conferencia sobre el niño peruano*).—This conference was held in Lima July 9–12. The members were the commission for child welfare; the membership, medical and executive committees of the conference; delegates from the cities and public charity organizations of the Republic, and others wishing to advance child welfare. The President of the Republic made an address at the opening session. Papers were presented by eminent members of the medical profession and were eagerly discussed. Among the many important recommendations of the conference, which showed by the subjects covered the modern trend of its social thought, may be mentioned the following: The taking of a census in order to have an accurate basis for infant mortality statistics; the establishment of prenatal clinics for pregnant mothers; better preparation of midwives; extension of free obstetric service; inspection of wet nurses; the protection of the mother as the basis of protection of the child; school medical inspection in order to correct physical defects of children; reformatories and juvenile courts; unity in the direction of child welfare institutions, by means of a national child welfare institute; the formation of a school for visiting nurses; the opening of a children's hospital in Lima; the use of public funds primarily for constructive work, and not for charitable purposes until the former have been properly served; the establishment of more milk stations, and many other features of a forward-looking program.

SALVADOR.

GOTA DE LECHE.—On June 25 a free milk station was opened in the city of Santa Ana, its inauguration being attended by the departmental governor, delegates from the Association of Public Charity of San Salvador, and other guests.

MEDICAL LIBRARY.—Dr. Alfonso Quiñonez Molina has presented a collection of textbooks to the library of the school of medicine. The library is now provided with all the textbooks necessary to students of the medical course.

SALVADOR FLOOD RELIEF.—A central flood relief committee was created by order of the President to handle the funds contributed by the Government, societies, individuals, and other sources for the relief of victims of the flood in San Salvador on June 11. This committee organized branch committees to handle the work and reported to the ministries of charity and government. The National Assembly appropriated the sum of 50,000 colones for relief measures. The Salvadorean Red Cross aided in feeding the flood victims and in providing shelter. Collections were taken up and funds raised in all parts of the country, many charitable entertainments being given,

from which the proceeds were sent to the relief committee. Guatemala, Costa Rica, and the American Red Cross sent funds for the relief of the flood victims.

RECOGNITION OF ILLEGITIMATE CHILDREN.—The city stamp tax of 2 colones formerly required in the civil registry office for the recognition of illegitimate children has been removed and it is now only necessary to make the proper personal declaration.

HOOKWORM CAMPAIGN.—The department of hookworm prevention on May 31 gave a popular lecture on hookworm upon the occasion of the opening of the branch office in Atiquizaya. About 400 persons attended this instructive lecture. New branch offices were opened in Ataco and San Francisco de Menendez of the Department of Ahuachapan on May 5, and in Ahuachapan on June 10.

URUGUAY.

OLD-AGE PENSIONS.—The pension bureau gives the following statistics from its inauguration on February 19, 1919, to May 31, 1922: Applications for pensions from persons residing in Montevideo, 7,851; applications for pensions from persons residing in the remainder of the Republic, 16,718; total, 24,569.

Pensions granted, 17,308; pensions refused, 1,424; number of applications canceled on account of death and other causes, 1,065; number under consideration, 4,772; total, 24,569. Number of pensions canceled, 1,618.

ANTI-FLY FILM.—As part of its propaganda against the fly, the National Committee of Hygiene is exhibiting a film which shows the life history of that insect and the rôle it plays in the transmission of diseases.

SANITARIUM FOR WORKING WOMEN.—Through the praiseworthy initiative of a group of Montevideo women, a modern sanitarium for working women has been opened in the capital. The institution has a corps of distinguished consulting physicians, an interne, and 30 graduate nurses.

VENEZUELA.

VENEZUELAN EYE SPECIALIST IN FRANCE.—Dr. Rafael Núñez Isava, who has lived in France for nine years, recently won much honor by a paper presented to the medical societies describing a case of *Myiasis ocular*, the first scientifically identified in France. Dr. Núñez Isava has proved that in the region about Paris there is a fly known as *Mosca Oestrus ovis* which lays its egg in the eye, causing a special affection of that organ. Due to his work the French Society of Ophthalmology made him an active member of their congress held last May.

GENERAL NOTES

ARGENTINA.

PRESIDENT-ELECT'S VISITS.—Doctor Alvear, the President-elect of Argentina and former Argentine Minister to France, was invited to visit the principal countries of Europe after leaving his diplomatic post. Before his departure from France President Poincaré gave a state dinner in his honor at the Ministry of Foreign Affairs.

Doctor Alvear's official visits may be briefly reviewed as follows:

On July 10 he arrived in Rome, where he was received by the King and many other distinguished persons and given apartments in the Quirinal Palace. He later went to the Argentine Legation accredited to the Holy See, then to the Vatican, where he was received by the Pope. After a half-hour audience with the Pope he visited Cardinal Gasparri, papal secretary of state. Cardinal Gasparri returned the visit at the Argentine Legation, where a reception was held. In the evening a banquet was given in the Quirinal Palace at which King Emmanuel and Doctor Alvear made speeches confirming the friendly relations between Italy and the Argentine Republic. The following day a luncheon, followed by a reception, was given at the Argentine Embassy in honor of the King of Italy.

On July 19 Doctor Alvear went to England, where he was entertained by King George, the latter bestowing upon him the Grand Cross of the Order of the British Empire, the K. B. E. upon the Argentine Minister, and the C. B. E. upon the secretary general of the legation. A luncheon was given to Doctor Alvear in the Mansion House, London, at which the lord mayor made an address of welcome bringing to mind the fact that England was the first country to conclude a commercial convention with Argentina about 100 years ago and that England made Argentina her first loan. Doctor Alvear's speech lauding the city of London and its old landmarks as well as its municipal institutions and citizens was much applauded.

England's Prime Minister presided at a dinner given on behalf of the British Government to Doctor Alvear on the evening of Friday, July 21. Upon Doctor Alvear's departure he was accompanied to Dover by the Argentine Minister in London and the British Minister to Argentina.

On August 1 Doctor Alvear arrived at Irún, Spain, where he was welcomed by the Spanish Minister of Foreign Affairs and other officials. After a reception at the Nautical Club he embarked upon a Spanish battleship which, accompanied by two destroyers, carried him to Santander where he was met by the King of Spain, and escorted to the Royal Palace of Magdalena. At the banquet held that evening the King congratulated Doctor Alvear upon his election as President and called attention to the fact that Doctor Alvear's visit to Spain differed from his visits to other countries in that his ancestors and the pioneers of his race came from Spain. Doctor Alvear in reply expressed his gratitude to the Spanish monarch and people for their cordial reception and gave assurance that as President he would strive to increase the strength of the bonds already existing between Spain and Argentina. Doctor Alvear's visit to Spain is thought to presage a considerable growth in trade relations and a possible visit to Argentina by King Alfonso.

ARGENTINE LIBRARY AT BRAZILIAN EXPOSITION.—As part of its exhibit at the Brazilian Centenary Exposition Argentina sent a library of national authors under the direction of Dr. Gregorio Aróaz Alfaro for scientific medical books: Dr. Oscar Rodríguez Saracjaga, works on law and social sciences; Ingeniero Nicolás Besio Moreno, books on exact sciences, physics and chemistry; Dr. Cristóbal M. Hicken, natural sciences; Dr. Ricardo Rojas, history, geography, philosophy and letters; Prof. Angel C. Bassi, education; Dr. Vicente López, economics; and Ingeniero Enrique M. Nelson, agronomics, rural economy, zootechnics and stock raising.

INDEPENDENCE CELEBRATION.—On July 9 the Argentine Republic celebrated the one hundred and sixth anniversary of her independence with appropriate ceremonies.

BRAZIL.

ELECTION.—Owing to the death of Dr. Urbano Santos, Vice President elect of the Republic, President Epitacio Pessoa ordered a new election to be held on the 20th of August to fill the vacancy for the period 1922–23.

CHILE.

CHILEAN BARITONE.—The famous Chilean baritone, Renato Zanelli, has been reengaged for next season by the Metropolitan Opera Co. of New York.

CENSUS.—The bureau of statistics has recently issued a preliminary report of the census of the Republic taken on December 15, 1920. It shows that the total population of the Republic on that date was 3,734,723; 1,866,751 men and 1,887,972 women. The cities having more than 15,000 population were: Santiago, 507,296; Valparaíso, 182,422; Antofagasta, 51,531; Concepción, 64,074; Coquimbo, 15,438; Curicó, 15,879; Chillán, 30,881; Iquique, 37,421; Lota, 16,764; Punta Arenas, 20,437; Rancagua, 17,188; La Serena, 15,240; Talca, 36,079; Talcaguano, 22,084; Temuco, 28,546; Valdivia, 26,854; and Viña del Mar, 35,441.

ART EXHIBITIONS.—Sr. Pedro Luna, who has recently returned from a stay in Europe, has been showing the pictures and studies made during his stay abroad. His work is distinctly modern in color and conception.

The winter salon, or independent artists' exhibition, was opened in Santiago the latter part of June.

SR. JORGE ERRÁZURIZ TAGLE.—On June 27 occurred the death of Sr. Jorge Errázuriz Tagle, senator for Colchagua, formerly a national deputy and professor of the philosophy of law in the University of Chile. Sr. Errázuriz Tagle took a deep interest in political economy,

on which he had written extensively. With Sr. Guillermo Eyzaguirre he made a unique study of the life of a laborer's family, living in intimate contact with it until complete data on its economic, domestic, and moral life were obtained and later setting down this information in a valuable monograph.

DR. GERMÁN VALENZUELA BASTERRICA.—Dr. Valenzuela Basterica, president of the National School of Dentistry, to whose development he had devoted a large portion of his life, died on July 7. He had studied his profession and the organization of schools of dentistry in France and the United States, having previously received his degree as a physician and surgeon. When offered a reward some years ago for a valuable service rendered to the Government, he asked for a new building to complete the equipment of the school.

COLOMBIA.

LATIN AMERICAN MEDICAL CONGRESS.—The national committee has chosen "The Mineral Waters of Colombia" for its subject in connection with this congress which, as already noted in the *BULLETIN*, meets in Habana this fall.

COLOMBIAN SCULPTOR'S WORK.—The Colombian sculptor, Marco Tobón Mejía, who executed the bronze statue of Dr. Rafael Núñez unveiled at the national capital July 20, was awarded a gold medal at the Annual Exposition of Fine Arts in Paris of this year.

OLYMPIC GAMES.—The second Olympic games were held in Bogotá on July 9 in La Merced Field under the direction of the head of the military school, who initiated the games last year. The program contained races, jumping, and other athletic events, for which first and second prizes of gold and silver medals were given. The schools which participated were the San Bartolomé, Central Technical School, Ricaurte, La Salle, and the University Institutes. The trophies offered by the ministry of war were a silver cup and a money prize.

COSTA RICA.

MEXICAN CONSULATE.—Mexico is to establish a consulate in the city of San José as a part of the program of increasing friendly relations between Mexico and Central America.

POPULATION.—The estimated population of the Republic on December 31, 1921, was 576,581. The registered births in 1921 were 18,252, an increase of 186 over 1920, and the deaths 10,044, a decrease of 3,376 over 1920.

CUBA.

HYDROGRAPHIC OFFICE.—In view of the necessity of a hydrographic office the Government has decided to accept the invitation

to become a member of the International Hydrographic Commission which will aid in the establishment of a national office for Cuba to correct the charts of islands, bays, coasts, keys, and reefs in Cuban waters.

DOMINICAN REPUBLIC.

HAGUE COURT.—Sr. Jacinto R. de Castro has been named member of the Permanent Court of Arbitration of The Hague, to succeed the late Dr. Apolinar Tejera.

ECUADOR.

BOLÍVAR-SAN MARTÍN MONUMENT.—Plans are being carried out for the erection of a monument to commemorate the famous meeting of Bolívar and San Martín, in Guayaquil, July 26, 1822. The monument is a semicircle of columns surrounding the central figures, completed in front by a semicircle of steps.

The same committee which planned the monument just described has been making Avenida Rocafuerte of Guayaquil a beautiful paseo, finely paved and embellished with other artistic monuments. One of these is a bust of Don Sebastián de Benalcázar, the conqueror of Quito and Popayán, and founder of Guayaquil. He came to Darién, Panama, with Pedro Arias in 1532, later defeating the Inca general Rumiñauí at Quito, and finally invading Popayán, of which he was made governor in 1538.

CRUISER "COTOPAXI."—The President of the Republic, accompanied by officers of the Army and Navy, witnessed the launching of the national cruiser *Cotopaxi* on July 27.

GUATEMALA.

BUREAU OF ARCHEOLOGY, ETHNOLOGY AND HISTORY.—This new bureau has recently been formed for the purpose of preserving national archæological relics and carrying on explorations in parts of the Republic where such remains of ancient civilizations are found. The head of the bureau is Mr. William Gates, a well-known American archæologist and investigator. The national museum to be built as part of this bureau will be located on the west side of Parque Morazán.

HAITI.

MONUMENT TO LOUVERTURE.—On July 9 the bust of Toussaint Louverture, the famous Haitian patriot, was unveiled with appropriate ceremonies in the square at Port au Prince which bears his name. The bust is the work of Normil Charles.

HONDURAS.

ART EXHIBITION.—In June an exhibition of the work of Tegucigalpa artists was held in the foyer of the Teatro Variedades. Por-

traits, landscapes, water colors, drawings and caricatures by Monteroso, Zúñiga Figueroa, and Lecha were on exhibition.

PERU.

STATUE OF WASHINGTON.—On a lofty pedestal between four palm trees stands the statue of Washington, a replica of Houdon's famous work, which was unveiled in Lima on July 4. President Leguía, in his dedicatory address, spoke in part as follows:

There has come to Peru today her desired opportunity to glorify the great American. After having erected statues to the most famous heroes of the Southern Continent, she wishes to render homage to and to give evidence of her admiration of the eminent Liberator of the great Republic of the North. . . .

In this manner will the capital of the Rimac possess in its midst this remembrance of American heroism. And while living under the spiritual influence of our own emancipators we will, from today on, feel the rivaling virtue of the immortal soldier of Virginia—just as Bolívar felt from Lexington and Concord, from the study of and reflection on the battles of Washington, the strong stimulus of the victor of Yorktown. . . .

May our lives have the magnanimity of Washington, the constancy of Bolívar, and the serenity of San Martín. . . .

My Government has wished to pay this homage on this day, the anniversary of the day on which the Liberty bell of Philadelphia announced the glorious advent of liberty. We therefore offer a symbol of affection and admiration to the Great Republic of the North. . . .

Chargé d'Affaires Sterling, of the United States, expressed himself in the following words:

In dedicating this statue of George Washington the illustrious President of the Republic has spoken of the forces which are bringing together the countries and the peoples of the New World as one entity. It is with great pleasure that we hear these lofty sentiments. Though speaking different languages and brought up under different environment, the peoples of the Western Hemisphere are one in their national aspirations—their aspirations toward true democracy founded on practical idealism. . . .

Mr. Sterling then read a telegram from the Secretary of State of the United States, Mr. Hughes:

The President of the United States charges you to express his sense of appreciation of the homage which the President of Peru pays today to the memory of Washington, whose lofty ideals have served as a constant inspiration to the people of the United States and whose acts and teachings are everlasting lessons for all free governments.

SUPREME COURT JUSTICE.—The vacancies on the supreme court bench caused by the deaths of Dr. José Santos Morán and Dr. Mariano Nicolás Valcárcel have been filled by the appointment of Dr. Alejandrino Maguiña and Dr. José Granda.

SALVADOR.

ROYAL SPANISH DECORATIONS.—On June 30 the Royal Spanish decorations conferred by King Alfonso upon the President of the

Republic, Don Jorge Meléndez, and the vice President, Dr. Alfonso Quiñónez Molina, the Minister of Foreign Affairs, Dr. Francisco Paredes, former Undersecretary of Foreign Affairs, the Minister of the Treasury, Dr. Reyes Rossi, and the chief of the protocol, Don Rafael B. Castillo, were presented in the National Palace by Viscount de Pegullal, Envoy of Spain, in recognition of Ibero American activities and understanding. The decorations were the grand Cross of the Royal and Distinguished Order of Carlos III, to the President; Grand Cross of the Royal Order of Isabel the Catholic to Minister of Foreign Relations; Star of Isabel the Catholic to the former Undersecretary of Foreign Relations, who is now Minister of the Treasury; and a patent of knighthood in the Order of Isabel the Catholic to Don Rafael B. Castillo, chief of the protocol and knighthood in the Royal and Distinguished Order of Carlos III upon Don Román Mayorga Rivas.

DEATH OF DR. ZALDIVAR.—The Salvadorean Minister to Guatemala, Dr. Rafael Zaldivar, died in the city of Chicago, while on leave of absence for medical treatment. Among the posts which he held with honor to his country were: Salvadorean Minister to the United States; secretary to the legation in France; professor of Medicine in the medical school; and chief physician of one of the clinics of Hospital Rosales. It was due to his initiative that the tuberculosis asylum was founded. The Government in the *Diario Oficial* of May 16 expresses the nation's sense of loss at his death.

URUGUAY.

EXHIBITION OF SCULPTURE.—The works of Sr. José Luis Zorrilla de San Martín, a young Uruguayan sculptor, have been on exhibition in Montevideo, where they received much admiration. The exhibition included a number of portrait busts and a patriotic monument.

VENEZUELA.

LEAGUE OF NATIONS.—The following persons have been appointed on the Venezuelan delegation to the League of Nations: Dr. Gil Fortoul, head of the delegation, Venezuelan Minister to France and Switzerland; Sr. C. Zumeta, inspector general of consulates, and Dr. J. A. Tagliaferro, of the magazine *Cultura Venezolana*, formerly president of the National Congress, and now vice president of the International Commission of Uniform Legislation, member of the American Society of International Law, and of the Academy of Social and Political Science of Philadelphia.



SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO AUGUST 15, 1922.

Subject.	Date.	Author.
ARGENTINA.		
First Argentine National Good Roads Congress.....	1922. June 17	W. Henry Robertson, consul general at Buenos Aires.
Port regulations governing the handling of loaded cartridges and turpentine in tins.	June 28	Do.
Program and regulations of proposed national dairy exhibition.	July 5	Do.
Live stock in Argentina in 1919.....	...do....	Do.
BRAZIL.		
Contractors' requirements in Brazil.....	June 12	Alphonse Gaulin, consul general at Rio de Janeiro.
Present condition of cattle and beef industry in Rio Grande do Sul.	June 21	Samuel T. Lee, consul at Porto Alegre.
Report on pumps and farm lighting plants.....	June 22	C. R. Cameron, consul at Pernambuco.
New Bahia shipping conference.....	June 26	Thos. H. Bevan, consul at Bahia.
Electric light service for Macau, State of Rio Grande do Norte.	June 29	C. R. Cameron.
Subsidized automobile service in Alagoas.....	July 6	Do.
Exports of rubber for month of June, 1922.....	...do....	Geo. H. Pickerell, consul at Para.
Foreign imports at port of Para during May, 1922.....	July 8	Do.
Measures for cotton protection in State of Pernambuco.	...do....	C. R. Cameron.
Motion picture accessories in Brazil.....	July 12	A. Gaulin.
CHILE.		
Sanitary drainage work in and around Arica.....	June 6	Egmont C. von Tresckow, consul at Arica.
Present conditions in the Chilean nitrate industry....	July 6	Homer Brett, consul at Iquique.
Nitrate statistics.....	July 7	B. C. Matthews, vice consul at Antofagasta.
COLOMBIA.		
Contractors' requirements in Colombia.....	...do....	Maurice L. Stafford, consul at Barranquilla.
June report on commerce and industries.....	July 11	Do.
Report on commerce and industries of Cartagena for June, 1922.	...do....	E. M. Soule, consul at Cartagena.
Colombian national budget.....	July 13	Do.
Crop damage in Colombia.....	July 14	Maurice L. Stafford.
Coffee shipments from Barranquilla.....	...do....	Do.
Public control of privately owned forest lands.....	...do....	Do.
CUBA.		
Methods used in advancing the sale of Cuban-made shoes.	July 12	James V. Whitfield, vice consul at Matanzas.
Movement of sugar from June 1 to July 10, 1922.....	...do....	Do.
Sugar production and exportation, 1921-22 crops, and exports for 1922.	July 20	Frank Bohr, consul at Cienfuegos.
ECUADOR.		
The railways of Ecuador.....	July 13	W. W. Morse, vice consul at Guayaquil.
GUATEMALA.		
June, 1922, report on commerce and industry.....	July 12	Henry T. Dwyer, vice consul at Guatemala City.
HONDURAS.		
Data obtained on a trip from Ceiba to Yoro.....	June 29	Alexander K. Sloan, consulat La Ceiba.
Henequen industry in Honduras.....	July 11	Robert L. Keiser, consulat Tegucigalpa.
School of agriculture for Honduras.....	July 14	Do.
May and June, 1922, reports on commerce and industries.	...do....	Do.
Proposed agricultural experimental station and school for the municipality of La Ceiba.....	July 24	Alexander K. Sloan.
Hog raising in the La Ceiba district.....	July 30	Do.

Reports received to August 15, 1922—Continued.

Subject.	Date.	Author.
MEXICO.		
Coffee exports for six months from Salina Cruz.....	1922, July 5	George E. Seltzer, consul at Salina Cruz.
Juarez to get new normal and high school building.....	July 22	Oscar C. Harper, vice consul at Ciudad Juarez.
Paving of two of the principal streets of Juarez.....	July 27	Do.
Report of the Mexican Railway Co. (Ltd.) for 1921.....	...do....	Claude I. Dawson, consul general at Mexico City.
NICARAGUA.		
Present and prospective production of sisal and other fibers in Bluefields district.....	June 30	Thos. W. Waters, vice consul at Bluefields.
PANAMA.		
May, 1922, report on commerce and industries.....	June 30	George Orr, consul at Panama City.
Registration and use of automotive vehicles.....	July 15	Do.
PERU.		
Trend of the motion-picture market in Peru.....	May 16	W. Daniels Smith, jr., vice consul at Lima.
SALVADOR.		
Budget of El Salvador for fiscal year, June 1, 1922, to June 30, 1923.....	July 2	Lynn W. Franklin, vice consul at San Salvador.
Summary of the tariff legislation for calendar year 1922.....	July 3	Do.
June, 1922, report on commerce and industries.....	...do....	Do.
Concession for the construction of railroads.....	July 6	Do.
URUGUAY.		
Corporation taxes in Uruguay.....	July 3	David J. D. Myers, consul at Montevideo.
New official values assigned products for exportation from Uruguay.....	July 6	Do.
VENEZUELA.		
New petroleum law of Venezuela.....	July 3	Thomas W. Voetter, consul at Caracas.
Coffee crop for 1922.....	July 6	Do.
Measures to improve Venezuelan cattle industry.....	July 12	S. J. Fletcher, vice consul at La Guaira



BOOK NOTES

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- El camino público. [Por] Adolfo de Cucco. La Plata, Imp. J. F. Terrier, 1921. 98, (1) p. 12°.
- El cultivo de secano en la provincia de Santiago del Estero. Experiencias cooperativas cultivos de primavera y verano. (Cereales—Plantas industriales—Hortalizas—Forrajeras.) Años 1919-20 y 1920-21. Por Hugo Miatello (hijo). Publicación No. 15. Agosto de 1921. Buenos Aires, illus. 34 p. 8°.
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- Industria y comercio de la provincia de Buenos Aires. Año 1920. Publicado bajo la dirección de Augusto B. Brunel, Director general de estadística y del departamento del trabajo. La Plata, Taller de Impresiones Oficiales, 1921. 73, (1) p. 4°.
- Las industrias del norte. Vol. 1. Contribución al estudio de una nueva política económica Argentina. Por Alejandro E. Bunge. Buenos Aires, 1922. 226 p. 8°.
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BOLIVIA.

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BRAZIL.

- Annaes da escola de minas de Ouro Preto. No. 16, 1920. Ouro Preto, Typ. Mendes. ports. 140 p. 8°.
- Anuario de conselho superior do ensino. Publicado sob a direcção do Dr. Benjamin Franklin Ramiz Galvão. Volumes 1-3, 1918-1921. Rio de Janeiro, Typ. do "Jornal do Commercio," Typ. dos Tribunaes, 1920-1922. 8°. 3 vols.
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CHILE.

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COLOMBIA.

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CUBA.

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DOMINICAN REPUBLIC.

- Informe sobre la situación económica y financiera de la República Dominicana. I el modo de solucionar sus problemas, presentado por el Licdo. Francisco J. Peynado, a la comisión especial del senado de los EE. UU. para investigar los asuntos de la República Dominicana. Santo Domingo, Imprenta de J. R. Vda. García, 1922. 33 p. 8°.

ECUADOR.

- Informe del señor presidente de la sociedad nacional de agricultura a la junta general extraordinaria. Quito, Tip. y Ecuad. de la Prensa Católica, 1921. 32 p. 8°.
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GUATEMALA.

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HAITI.

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HONDURAS.

Discurso pronunciado por el Dr. Santiago Argüello, en el salon consistorial, el día 15 de septiembre de 1921, en representación del gobierno de Honduras, en la fecha con que se celebra el centenario de la independencia nacional. Tegucigalpa, Tip. Nacional, 1921. 13 p. 4°.

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La pena de muerte en el senado Nicaragua. (Discútes la solicitud de conmutación de la pena capital introducida en la Cámara, por el reo Hilario Silva). El condenado a muerte. Poema recitado por su autor . . . Santiago Argüello . . . Tegucigalpa, Tip. Nacional, 1921. front. port. 30 p. 12°.

PANAMA.

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PERU.

Memoria del colegio nacional de San Luis Gonzaga para el año escolar de 1921. Ica, Imp. La Industrial, 1921. fold. tables. 14 p. 8°.

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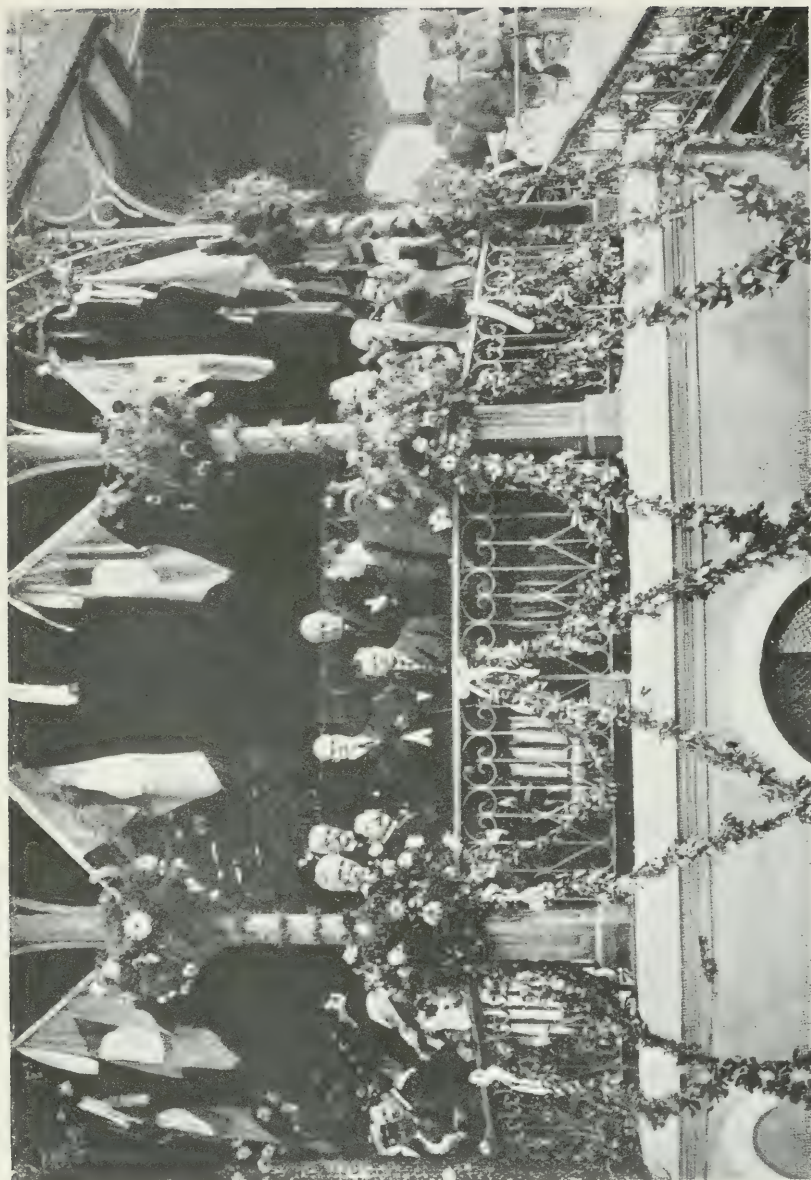
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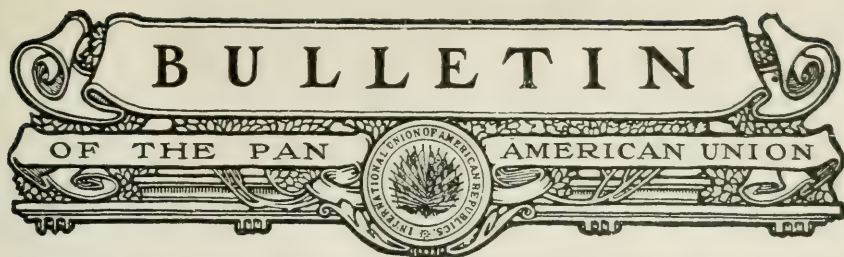
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Courtesy of Para Todos.

SECRETARY HUGHES AND THE CELEBRATION OF BRAZILIAN INDEPENDENCE, RIO DE JANEIRO, BRAZIL.

One of the events of the celebration was the great review of troops, including units from seven nations, on the 7th of September. The illustration shows the President of the Republic, Dr. Pessoa, the foreign Ambassadors and Ministers of State on the reviewing stand. To the President's right is Secretary Hughes.



VOL. LV

NOVEMBER, 1922.

NO. 5

THE SPECIAL MISSION TO BRAZIL: ADDRESSES BY SECRETARY HUGHES

FOREWORD.¹

ON August 24, 1922, the Hon. Charles E. Hughes, Secretary of State of the United States, sailed from New York for Rio de Janeiro as Chief of a Special Mission appointed by the President to represent the United States at the celebration of the Centennial Anniversary of Brazilian Independence. The other members of the Mission were: Hon. Stephen G. Porter, Chairman of the Committee on Foreign Affairs of the House of Representatives, Admiral Hilary P. Jones, Maj. Gen. Robert Lee Bullard, and Justice Edward Ridley Finch, Supreme Court of New York.

On September 5, the Special Mission entered the harbor of Rio de Janeiro on board the U. S. S. *Maryland*. The following day, September 6, the credentials of the members were presented to President Pessoa at the Cattete Palace with the felicitations and expressions of friendship of President Harding. The Special Mission remained in Brazil as the official guests of the Nation until September 12.

The visit of the Secretary of State to Brazil means much more than a mere act of courtesy to a sister Republic. It marks a distinct step forward in Pan American relations. During the course of his stay Secretary Hughes delivered a number of addresses, which made a deep impression, not only in Brazil, but throughout Latin America. These addresses were widely reported in Brazil and in the Spanish-speaking countries. They deserve careful reading by the people of this country, for they express with great clearness and vision the high purposes of the foreign policy of the United States.

¹ By Dr. L. S. Rowe, Director General of the Pan American Union.

ADDRESSES OF SECRETARY HUGHES.

ADDRESS AT THE DEDICATION OF THE SITE FOR THE AMERICAN CENTENNIAL MONUMENT AT RIO DE JANEIRO, SEPTEMBER 8, 1922.

MR. AMBASSADOR, LADIES, AND GENTLEMEN:

I am happy to be able to have a share in the setting apart of this site for the American Centennial Monument and especially on this occasion to greet my fellow countrymen and the friends of Brazil and of the United States who have gathered here.

I wish that I might convey to you an adequate sense of the agreeable impressions that I have received during my short visit; of my appreciation of the incomparable beauty of this scene whose enchantment weaves a lasting charm; of a prosperous Capital where the resources of science are marshaled under efficient direction to meet the ever-increasing needs of civic life; of the countless manifestations of the genial disposition and kindness which characterize the Brazilian people; and above all, of the generous hospitality with which we have been favored by this warm-hearted people whose cordial welcome and constant consideration and friendliness have converted an occasion of official privilege into one of rare personal enjoyment. These beautiful days will ever be a most happy memory.

It is fitting that this monument should be erected as a memorial to the historic friendship between Brazil and the United States. Our Government was the first to recognize the independence of Brazil and from that moment the bonds of esteem and amity have been unbroken. The cry of Ipiranga, "Independence or death," can not fail to remind us of the memorable words of our own Patrick Henry, "Give me liberty or give me death." And amid all the vicissitudes of 100 years there has been an abiding appreciation of a community of ideals and interests which has blessed both peoples with a sense of peaceful and mutually beneficent relations.

But this memorial is even more significant. It not only attests our enduring friendship but it expresses the admiration of the people of the Republic of the North for the vast achievements of our sister of the South and of what has been here wrought in the development of a great people.

The celebration of this centenary brings up the memories of the past; of the first intrepid voyagers; of the *bandeirantes* pressing into the interior and obtaining a glimpse of the extraordinary resources and potentiality of this land of promise; of the early colonial organization which first gave institutional basis to the activities which were to civilize a continent; of the establishment here of the seat of governmental authority of the mother country; of the inevitable assertion of a vigorous independent national life; of the long and beneficent reign of that most liberal and high-minded ruler—the scholar and statesman, Dom Pedro II; of the free spirit of the people of Brazil crushing slavery and erecting republican institutions; and, most recently, of our association in the momentous struggle which saved the cause of liberty itself and put an end, as we hope, for all time to the pretensions of brute force.

I take pleasure in recalling that Thomas Jefferson, the first Secretary of State of the United States, gave instructions in the year 1791 to David Humphreys, minister to Portugal, to "procure for us all the information possible as to the strength, riches, resources, and disposition of Brazil." Those of us who, with speed and every possible comfort and modern convenience, have recently made the journey from New York, find fascination in the endeavor to imagine the experience of those mariners of

Salem, Mass., of Providence, Boston, Philadelphia, New York, and other ports, whose vessels were frequent visitors to this harbor and other harbors of this coast in the opening years of the nineteenth century. I am informed that, as early as the year 1802, 8 of the 13 maritime States of North America were trading with almost all of the ports of the South American Continent, and scores of our vessels were trading here.

But this fortunate land of Brazil is one of constant revelation, and to-day, more than ever before, we are appreciating the limitless possibilities of its development, of the prosperity that the future has in store for its people, and of the extraordinary promise of their service to humanity. This, my friends, is unquestionably the land of the twentieth century, and, in providing for the erection of this monument, we are expressing not only our tribute to what has been wrought in the past but our confidence in the future and our earnest desire that the brightest hopes of Brazil may be abundantly realized.

We shall also be glad to have this monument associated in the thought of our friends with a true appraisal of our North American ideals and aspirations. You, my fellow countrymen of the United States, know full well how sincerely we desire the independence, the unimpaired sovereignty and political integrity, and the constantly increasing prosperity of the peoples of Latin America. We have our domestic problems incident to the expanding life of a free people, but there is no imperialistic sentiment among us to cast even a shadow across the pathway of our progress. We covet no territory; we seek no conquest; the liberty we cherish for ourselves we desire for others; and we assert no rights for ourselves that we do not accord to others. We sincerely desire to see throughout this hemisphere an abiding peace, the reign of justice and the diffusion of the blessings of a beneficent cooperation. It is this desire which forms the basis of the Pan American sentiment.

On this auspicious occasion we are agreeably impressed with the present extent of this cooperation. The various organizations now meeting here remind us that science has no frontiers. Here are gathered those who are putting together the results of the most careful archaeological researches: those who are bringing their historical studies to fruition in papers which will form an accurate and careful historical narrative based on original sources. We have also gathered here the engineers for whose precise knowledge and trained hands nature has been waiting. And, while I can not mention all the organizations that are now represented in this capital in connection with this centennial celebration, I should not fail to speak of the philanthropists who are devoting themselves to child welfare, the protection of humanity itself. Let me also recall to you, as an illustration of beneficent cooperation, the work which some of our fellow countrymen have been doing in Brazil, and in other parts of Latin America, in conquering the most dreaded forms of disease, while in the varied plant life of this great country we have found the means of health and healing.

I have not dwelt upon the growth of the commerce between our countries; the gratifying statistics I assume are known to you all. But even more important than the exchanges of products are those interchanges of sentiment, inspired by mutual understanding, which are constantly taking place through the presence in each country of representatives of the other. It is especially pleasing to note the far-sighted action of the Brazilian Government in providing for postgraduate study abroad for the best students in schools of agriculture and industrial training, so as to develop a body of highly trained technical men. I understand that there are about 250 young men of Brazil now studying in the educational institutions of the United States, and we trust that many of our North American students will find their way here and to other countries in Latin America in order that they may have the benefit of personal observation and study of institutions and economic life.

The people of the United States and the people of Brazil are alike devoted to the ideals of peace. But peace has its method as well as war. The method of peace

is that of more perfect knowledge and understanding; of mutual respect for rights with the correlative recognition of obligations; of resort in all difficulties to the processes of reason; of summoning all the ability and strength of the country in the interest of peace with the sincere and intense desire to find amicable solutions instead of causes for distrust and enmity.

It is the disposition to peace that alone can assure peace. We of this hemisphere are happy to be free from any menace of aggression. Many of the most important controversies have been solved or are in process of solution. Why should we not have enduring peace and the benefits of cooperation? We have institutions dedicated to freedom, and we desire not simply the independence of might but the independence which rests secure in a prevailing sense of justice. We have different stocks and traditions but we cherish the same aspirations; the same longings for liberty under law. The differences are superficial, the resemblances fundamental. We derive our strength from the same spiritual forces. We have been co-laborers and, united by the memory of our historic friendship, we are going forward with mutual respect to the enjoyment of our varied opportunities, knowing full well that only in brotherly helpfulness shall we find the adaptations which the democratic spirit demands and be assured of the satisfactions of rational progress.

I join with you in this tribute to the achievements of the Brazilian people and in this expression of our abiding interest in their ever-increasing prosperity and happiness.

ADDRESS ON BEHALF OF THE SPECIAL MISSIONS IN RESPONSE TO
THE ADDRESS OF PRESIDENT PESSOA. AT THE DINNER GIVEN AT
THE CATTETE PALACE, ON THE EVENING OF SEPTEMBER 9, 1922.

MR. PRESIDENT:

It is a high privilege to be permitted to make response to the eloquent words of greeting which Your Excellency has spoken.

I am sure my illustrious colleagues would have me at once give expression to our deep appreciation of the warm welcome that we have received, of your kindly and generous hospitality, and of the constant manifestations on the part of your people of good will and friendliness which will ever remain a most grateful memory.

Mr. President, these messages of most cordial felicitation, brought to you by the Governments represented here, voice the sentiments of both hemispheres of admiration for the achievements of the Brazilian people, of gratitude for their notable services to civilization, of the strong friendship which finds its enduring basis in a just estimate of their qualities and purposes, and of the earnest desire that they may ever enjoy the most abundant prosperity.

The history of Brazil, as Your Excellency has indicated, affords an extraordinary, if not a unique, illustration of peaceful progress. Radical political changes have been wrought without excesses of violence or bloodshed, in answer to the demands arising from convictions which gradually came to be so generally held and so deep-seated as to make opposition futile. Thus the free spirit of the people of Brazil has won its notable victories of peace; asserting independence, making imperial rule under the most enlightened statesmen the servant of democratic impulses, putting an end to human bondage, and, finally, establishing broad and secure the foundations of liberty in the institutions of this Republic.

We pay our tribute to the past; to the deeds of heroic men, of strong and valorous leaders who have given you the imperishable heritage of their fortitude and sacrifice; and to the scientists, historians, poets, orators, and statesmen who have exhibited the rich fruitage of your intellectual life.

But it is not a dead past that we celebrate. Despite its distinction and achievement, it is a past that is most noteworthy because it is only a beginning. It is the seed-

time of which we await the sure and abundant harvest. This is preeminently the land of promise, of almost limitless possibilities, whose development not only will make the future of its people secure but will confer untold blessings upon mankind. You have spoken, Mr. President, of the scientific, historic, and artistic and economic congresses which are in session in connection with this Exposition. These not only attest the intellectual interests which have been so happily fostered here but also give assurance of the highly trained talent and technical skill which are at your service in making available the resources of this wonderful country for the service of humanity.

It is what men bring to nature that determines the extent to which they may obtain her blessing. With just pride you have pointed out the vast growth in your commerce, the establishment of facilities of communication, the varied municipal enterprises through which science and skill in engineering have enabled you to meet every civic need, the barriers which you have successfully erected against the invasion of disease, and the countless adaptations which give convenience and comfort to modern life. But, as I have said, this is but the preparation for a new era of economic activity, of increased commerce, of a more widely diffused prosperity with all its attendant cultural benefits.

Mr. President, I place above all the devotion of the people of Brazil to the ideals of liberty and peace. The tolerant spirit which has here been manifested and the kindly disposition of your people give her better assurance than any natural riches of the contentment and happiness which must be the aim of civic effort. You have wrought successfully in peace because you have a will to peace. We have emerged from the most terrible struggle of history determined that, despite our human frailties and the varied causes of controversy, there shall be no more war. We are seeking to discover the means of preserving the peace of the world, but we know that it will not be found in forms or mere engagements but can only be secured as the sentiment of justice prevails over every conflicting interest and men come sincerely to prefer the processes of reason to the struggles of force.

Brazil in her long history has given an example to mankind, and our meeting here is, in effect, the promise of a future of peaceful cooperation.

Mr. President, we can have no better wish for your country than that the ideals which you have nobly expressed may ever be cherished by your people.

REPLY TO SENATOR ALFREDO ELLIS, UPON THE OCCASION OF CALL OF COMMITTEE OF THE SENATE AND HOUSE OF DEPUTIES OF BRAZIL AT THE GUANABARA PALACE, SEPTEMBER 11, 1922.

SENATORS AND DEPUTIES:

I am very deeply sensible of the honor that you confer in calling upon me and I am profoundly touched by the words which have been so eloquently uttered by Senator Ellis, who has spoken in your behalf. It is but another illustration of the generosity and courtesy which has been so constantly manifested ever since the moment of our arrival in this, if I may say, enchanted spot.

It is especially agreeable to me to meet you, Senators and Deputies, as representing the legislative branch of the Brazilian Government. You in Brazil, and we in North America, are attempting the greatest task ever undertaken by man, the working of free institutions under a republican form of government. To that task must be brought not only the firmness and the fidelity of the Executive, not only the impartial judgment of the judiciary, but the constant skill and foresight of the legislative body informed by experience and always inspired by patriotic zeal. The legislature is the arbiter of national policy. With the legislature rests the responsibility of the constant adaptation to the expanding needs of society, in order that a just balance may be maintained in the enactment of new laws by which you may have, as your motto

indicates, order and progress. The two are essentially related. We have our problems in North America; you have your special problems here; but our means, our facilities, our instrumentalities through which we endeavor to solve these problems are very much the same. In preserving the local autonomy of great States and in endeavoring to promote the general welfare, the eventual interests of all the people, there is required the highest degree of wisdom in order that the future may be as secure as we wish it to be. To you, and to your successors, to those who in other Republics are endeavoring to meet these exigencies, is confided this peculiar interest of the advance of the people—of their advance through wise laws, not representing a temporary and inconsiderate demand, and not, on the other hand, refused because of an inability to appreciate the just requirement of change, but in order that there may be that steadiness and stability by which the people may vindicate their right to rule themselves.

I thank you from the bottom of my heart for the words which you have spoken in regard to my country and your allusions to the early days when Washington won for us our liberty. From the time of Brazilian independence we have been going forward hand in hand, and I trust that we may ever be, as I have no doubt we shall be, fellow-laborers in this great cause, devoted to the interests of peace and intent upon securing for our peoples the utmost prosperity.

ADDRESS AT THE LUNCHEON TENDERED BY THE BRAZILIAN BAR ASSOCIATION, SEPTEMBER 12, 1922.

MR. CHAIRMAN, MOST EMINENT JUDGES, AND GENTLEMEN OF THE BAR:

I am grateful for the opportunity to be present at this distinguished gathering of the members of the bar of Brazil, and I am deeply affected by your generous greeting.

It is always a pleasure for me to turn from other activities, however important and agreeable, to the fellowship of those engaged in the administration of justice. My life has been devoted to the law, and the comradeship of the bar is the most delightful of all associations. Whatever difference there may be in our legal systems, or in details of procedure, we are united by the sense of a common loyalty to the law.

It would be easy to speak of the similarity of the political institutions of Brazil to those of the United States of North America. I should be glad to review the resemblances in our constitutional arrangements and especially to the provisions by which we seek to safeguard and promote the essential interests of the Nation without an unnecessary sacrifice of local autonomy. You are very familiar with the work of our Supreme Court by which we maintain the checks and balances of our constitutional system. I recall that with his enlightened interest and prescience, the Emperor Dom Pedro II instructed the Brazilian minister to the United States to "study with special care the organization of the Supreme Court of Justice in Washington." He added with true insight: "I believe that in the function of the Supreme Court is the secret of the successful operation of the American Constitution."

But in these brief remarks, as I am about to leave this most hospitable capital, I desire to refer to what is even more fundamental than any constitutional precept. The more I study government, or concern myself with problems of legislation and administration, the more thoroughly I am convinced that the essential condition of all progress is respect for law.

Liberty must have its institutions, and these of necessity are institutions of law; that is, institutions for the application of accepted principles of right conduct rather than vehicles for the exercise of arbitrary power. Such institutions rest for their final security in the self-restraint of those who love liberty too much to destroy its essential foundations.

We live in a world which has been torn, distracted, and convulsed, and we are turning again with the hope which will admit of no denial to the ideals of justice. But

where among men is justice to be illustrated if not in our courts and by the ministers of the law? Justice is not an abstraction; it is the most practical concern of a free people. In our courts, if anywhere, must be found an abiding assurance that neither force nor intrigue, neither corruption nor favor, can disturb the true scale of justice where sound and impartial judgment gives the decision. It is in the administration of justice through our courts, and in the standards of the legal profession, that we find unfailingly the measure of our civic success.

Our expanding civilization is constantly imposing heavier burdens upon our tribunals and upon those who are called upon to aid in the protection of rights and the redressing of wrongs. We desire beneficent laws, but the statute is expressed in its interpretation, and its practical value rests upon its fair administration. There is no assurance of either save as the judicial function is faithfully performed, and it is idle to look for fidelity in the administration of justice unless the members of the bar are inspired by the loftiest sentiments.

I have great respect for the appropriate technique which is essential to correct administration, but I have no sympathy with those who lose the spirit of the law in the worship of its garments. It is to those who are most learned in the law that we must look for reform in its administration. It is from those who best understand all the subtleties of the law that we must expect the assistance in restoring and maintaining simplicity and directness, adequate methods of procedure, and the controlling sense of justice by which alone we can be sure that through over-refinement and technicality the law may not defeat its own purposes.

I speak also for the independence of the bar; for the fearless ministers of the law who stand erect in the presence of power and defend liberty under law at whatever cost. Our lawyers have been prophets of liberty and its most zealous defenders. To whom is the community to look for enlightened advice if not to those learned in the institutions of government, in the development of jurisprudence, who are imbued with the spirit of the law, who know where improvements are needed, and through whose wisdom the just and necessary changes may be secured? There is no greater treachery than that of the lawyer who is faithless to the high ideals of justice, for if he fails, where shall the community look for the safeguards of free institutions? The essential basis of civilized intercourse in the last analysis is very largely in the keeping of the bar.

We are looking to-day beyond our domestic jurisdictions in the earnest desire to establish the reign of law among the nations and to secure the peaceful settlement of controversies. But we shall be able to satisfy this aspiration only as among our separate peoples we diminish hatred, control the passions which subvert the judgment, develop the desire to be just as well as strong, and count those as enemies of the national welfare who seek to breed suspicion and distrust.

It is with these sentiments that I extend my salutations to you, distinguished judges and lawyers, guardians of the administration of justice in Brazil, a country which has been honored by a long succession of most learned lawyers who have adorned the history of your jurisprudence and who have made notable contributions to the development of international law. I wish for your country the supremacy of the principles of liberty and justice, to the maintenance of which you have devoted your lives.

WHAT CHILEAN RAIL- WAY ELECTRIFICATION MEANS'

By M. R. LLOYD.

ONE of the notable features of recent international trade has been the numerous orders received by manufacturers in the United States for large electrical installations in foreign countries throughout the world. Particular interest has been shown recently by foreign countries in the electrification of their railways, and several contracts of this kind have lately been awarded to United States firms.

Of these the most important, from several points of view, is the contract calling for the electrification of 144 miles of railway in Chile at a cost of approximately \$7,000,000. It is interesting to note that this contract was secured in the face of severe European competition and that all equipment for which the contract calls will be furnished by manufacturers in the United States. The fact that the American firm made an elaborate and detailed study of the engineering problems involved, sending its experts to Chile for this service, was largely responsible for securing the contract.

FAR-REACHING EFFECTS ON INTERNATIONAL COMMERCE.

This electrification project marks the initial step in a scheme of transportation development which will ultimately have far-reaching effects on international commerce with the west coast of South America. It will serve not only to promote commerce between Chile and neighboring countries, and hence between Chile and the countries of Europe, North America, and the Orient, but it will make available a large quantity of electric power for industrial purposes, which will enable the various manufacturing industries of Chile to equip themselves with the latest and most modern types of machinery.

Furthermore, the electrification will reduce mail time between Valparaiso on the west coast of South America and Buenos Aires on the east coast, and, since mail is frequently routed *via* Buenos Aires for the west coast, this saving in time will tend to facilitate the foreign commerce of Chile.

¹ From American Exporter, May, 1922.

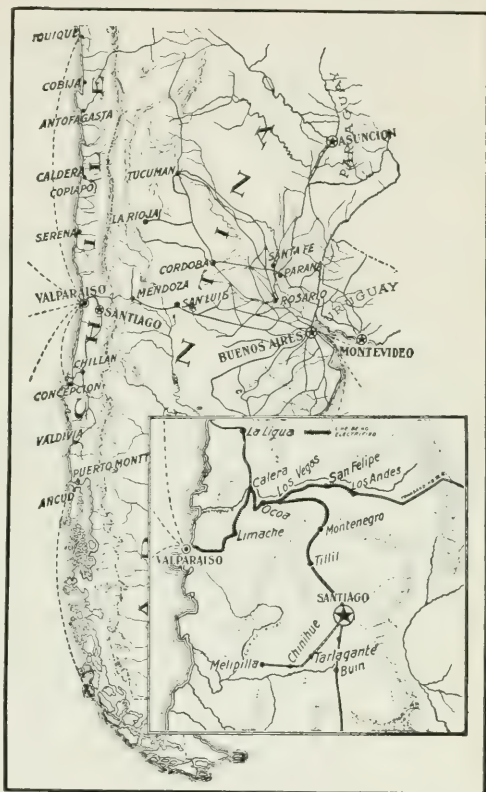
The problem of railway development is of particular importance in Chile, since, despite the fact that considerable coastwise shipping provides transportation along the country's 2,600 miles of coast line, the railway system, which in some respects is one of the most complete in South America, is the main artery of freight movement.

Chile has 5,200 miles of railway, of which some 30 per cent is privately owned and operated for mining and industrial enterprises and the remainder is controlled by the Government. The most important part of Chile's railway system is the longitudinal line extending from Iquique in the north to Puerto Montt in the central south. The State railways are divided into two general systems, the broad gauge road from Valparaiso south to Puerto Montt by way of Santiago, with its many branches, and the narrow gauge longitudinal system from Calera north to Iquique.

ELECTRIFICATION DETERMINED ON COMMISSION'S REPORT.

In 1918 the Chilean Government appointed a commission to study the problem of electrifying the Chilean State railways. This commission, the members of which were Rafael S. Edwards and Ricardo P. Solar, made a careful analysis of the results of railway electrification in various parts of the world and, as a consequence of the possible economies demonstrated in its report, the Chilean Government decided to undertake the electrification of the State railways.

The report of the commission appointed by the Chilean Government contemplates the ultimate electrification of the entire broad-gauge



Courtesy of American Exporter.

MAP SHOWING SCOPE OF CHILEAN RAILWAY ELECTRIFICATION.

The large map shows the relation of Chile's railway system to that of Argentina, with which it is connected by the Transandine Railway, linking the east and west coasts of South America. The small map shows the portion of railway which is now being electrified.

system. The first step toward the realization of this comprehensive plan is now being undertaken and involves the electrification of the railway between Valparaiso, the principal seaport and the second largest city of Chile, and Santiago, the capital and largest city of the country, a distance of 116 miles.

In addition to this there is likewise being undertaken the electrification of a branch line from Las Vegas to Los Andes, a distance of 28 miles, the latter point being the Chilean terminus of the narrow gauge Transandine Railway, which affords railway connection between Valparaiso, Chile, and Buenos Aires, Argentina, linking the Atlantic and Pacific Coasts.



THE MAIPO STATION, SANTIAGO, CHILE.

This will be the terminal of the electrified lines.

VALPARAISO A GREAT FACTOR IN CHILE'S IMPORT TRADE.

The importance of this undertaking in both the foreign and domestic commerce of Chile is very great. Of Chile's total import trade about 55 per cent passes through the port of Valparaiso, goods destined to Santiago and cities as far south as Puerto Montt being shipped by railway from that port. During the war, traffic over this portion of the railways became very congested and rapidly approached the capacity of the line. In order to alleviate this condition, the expedient was resorted to of laying additional tracks over a considerable portion of the line and of purchasing Mikado-type steam locomotives. The present change to electric operation permits a more efficient use of the trackage through ability to handle not only a greater number of trains but a greater tonnage per train with greater speed.

The freight tonnage southbound from Valparaiso averages approximately 3,600 gross tons daily, while that passing Las Vegas in the

same direction from the Transandine Railway averages 3,900 tons daily. The northbound traffic is only slightly less than the southbound. At present the freight trains going toward Santiago are made up of 20 to 30 cars each, or a trailing load of 550 tons. These trains are hauled by Mikado-type steam locomotives.

The electrification contract provides for the purchase by the Chilean Government of 39 electric locomotives, of which 15 will be freight, 6 will be express passenger, 11 will be local passenger, and 7 will be switching locomotives. The new electric freight-hauling locomotives will each haul 770-ton trailing loads, thereby increasing by 40 per cent the trailing weights now hauled and reducing the number of trains run by 28 per cent, on the basis of present traffic.



Courtesy of the *Scientific American*.

TRAIN SHED OF THE MAPOCHO STATION, SANTIAGO, CHILE.

Showing American standard steam trains now in use.

ELECTRIFICATION WILL EFFECT GREAT SAVING IN DELIVERY TIME.

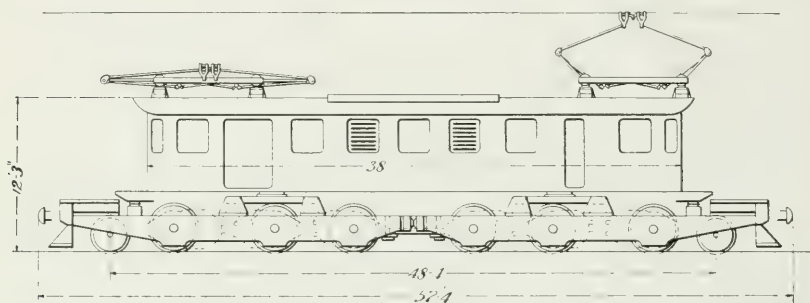
One of the benefits which will accrue to merchants lies in the fact that through freight trains, which now make the trip between Valparaiso and Santiago in from 10 to 12 hours, will be capable of making the trip, after electrification has been completed, in from 6 to 7 hours, a saving of from 4 to 5 hours in time in the delivery of merchandise.

A saving of time will likewise be made in the express passenger service between Valparaiso and Santiago. These trains, which are for the accommodation of first and second class passenger traffic, are the fastest in the service and now make the 116-mile run in 3 hours and 40 minutes. With electric operation it is proposed to get the running time down to 3 hours and 15 minutes, a reduction of 25 minutes in the time of the trip.

INSTALLING THE SYSTEM.

The 3,000-volt direct-current system has been decided upon as best suited to the conditions. Hydroelectric power will be generated at the Maitenes station of the Chilean Electric Tramway & Light Co. (Ltd.). This station is already under construction and will utilize the waters of the Río Colorado. The station will contain three 8,125 kilovolt-ampere Westinghouse generators and will have an ultimate capacity of 30,000 kilowatts. This power will be transmitted 37 miles to Santiago by twin-circuit 110,000-volt transmission lines and will be generated at 50 cycles, 3-phase.

These transmission lines will be connected at Santiago with the system fed by the Florida hydroelectric station and the Mapocho



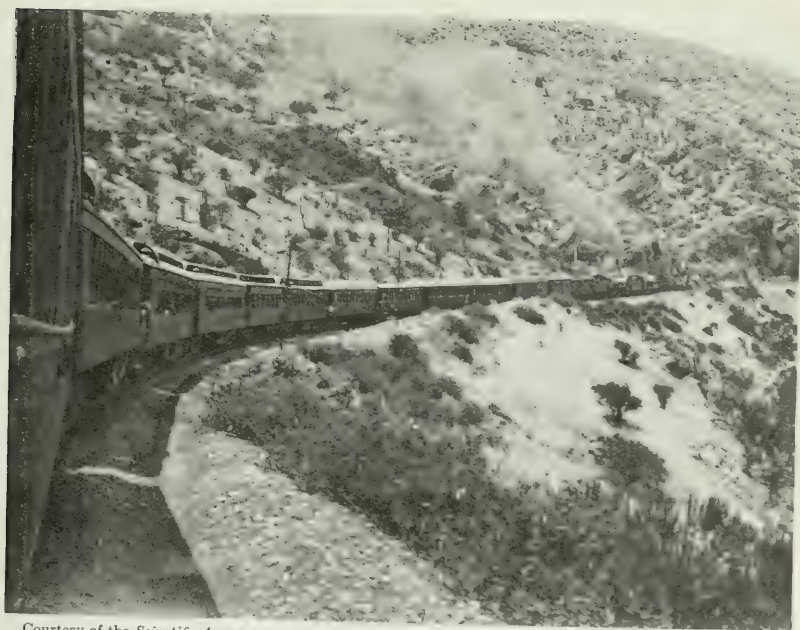
Courtesy of the Scientific American.

EXPRESS PASSENGER LOCOMOTIVE FOR THE CHILEAN STATE RAILWAYS.

steam station, both of which were constructed some years ago by the Germans and were designed for 50-cycle 3-phase power. The total capacity of the three generating systems at present proposed will be when completed, approximately 120,000 kilowatts.

The power will be distributed by five substations designed to handle a train movement that is approximately 50 per cent greater than that existing in 1917, with a further provision for tripling the 1917 traffic demands, if necessary. Each station will initially contain two Westinghouse 2,000-kilowatt motor-generator sets, each set consisting of a 2,800-horsepower driving motor and two 1,000-kilowatt 1,500-volt generators connected in series. These sets will be designed to withstand a 200 per cent overload for five minutes without injury, and as an additional safeguard the flash suppressor which the Westinghouse Co. has developed will be included.

Substations Nos. 1 and 5 will receive power at 12,000 volts, while Nos. 2, 3 and 4 will receive power at 44,000 volts. Transformers and switching equipment will be of the Westinghouse latest design, and the Westinghouse developed power indicating and limiting equipment will be installed.



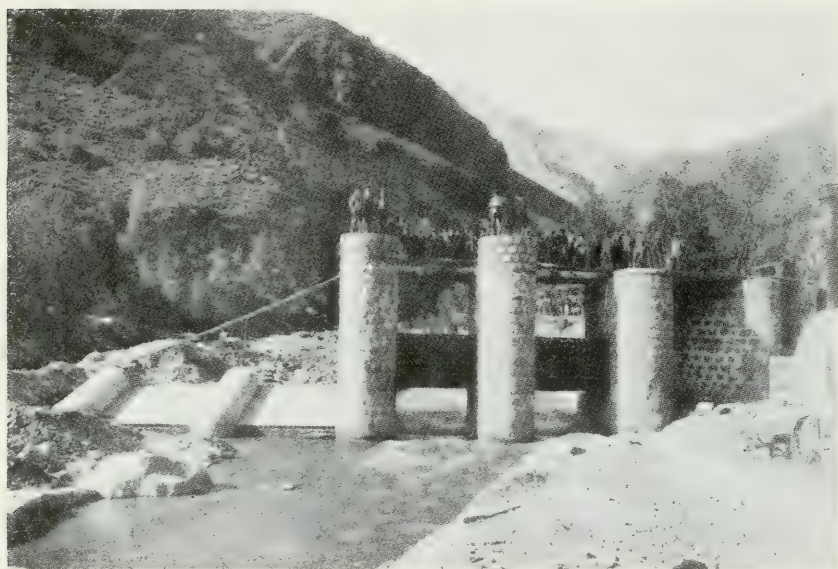
Courtesy of the Scientific American.

RAILROADING IN THE CHILEAN ANDES, WHERE THE ELECTRIC LOCOMOTIVE IS
TO REPLACE STEAM.

Upper: Snow conditions on the trans-Andean railroad which is also scheduled for electrification. Lower:
Sixteen-car passenger train ascending a grade behind two locomotives.

100,000 HORSEPOWER AVAILABLE FOR INDUSTRIAL USE.

A benefit of much more far-reaching importance than the actual electrification of the railway will be the availability for industrial use of some 100,000 horsepower derived exclusively from the rivers of Chile for which the railway electrification plan provides. There has recently been organized in Santiago a company with a capital of £12,000,000 whose chief object is to develop electricity from the waterfalls in central Chile for supplying light and power to Santiago and other cities and towns. The new company, which is called the Cia. Chilena de Electricidad Ltda., was formed as a combination of



Courtesy of The Pan-American Magazine.

THE MAITENES HYDROELECTRIC PLANT: DIVERTING DAM ON THE RÍO COLORADO.

This plant will furnish 30,000 horsepower.

the Cia. Nacional de Fuerza Electrica and the Chilean Tramway and Light Co. and will supply the power for the electrification of the railway between Santiago and Valparaiso in addition to many other industrial uses.

The company has a plant 12 miles from Santiago with a capacity of 20,000 horsepower and another in Santiago of 18,000 horsepower soon to be increased to 28,000 horsepower. At Maitenes on the Colorado River, 37 miles from Santiago, there is in process of construction a large plant which will furnish 30,000 horsepower and which will be completed in the middle of the present year. The company plans to build, later on, one of the most powerful hydroelectric stations in the world at Puente de Cristo, which will develop 65,000 horsepower.

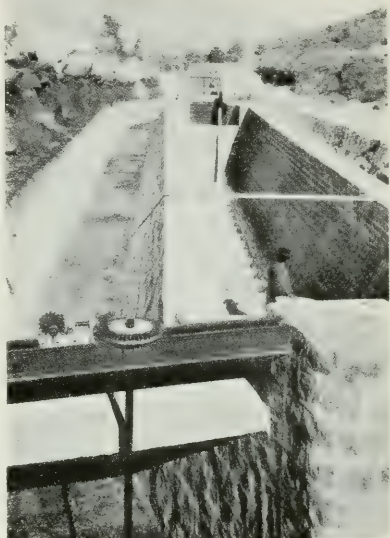
The importance of this hydroelectric development to the industrial and commercial life of Chile will be very great, since it will for the first time provide an adequate supply of cheap power for manufacturing purposes and will increase the use of modern and up-to-date machinery in Chile's numerous manufacturing industries.

There is a certain historical interest in the fact that a United States company will have charge of the electrification of the Chilean railways, since the first survey for a railway between Valparaiso and Santiago was made by an American citizen. This American was Thomas Wheelwright, one of the pioneers in the commercial development of the west coast, who first came to Chile in 1824. Among his earliest ventures were the installation of water-supply systems in Valparaiso and Callao and the construction of gas works in Valparaiso and other Chilean cities.

Wheelwright's most important undertaking, however, was the development of the Pacific Steam Navigation Co., which he first broached in 1833 and which began its actual career in 1840, when the first two steamers of the line made their appearance in the harbor of Valparaiso.

In 1846 Wheelwright made a survey for a railway to connect Valparaiso and Santiago. This scheme was considered impracticable by the Chilean Government and the project was not revived until some 5 years later. It is interesting to note that another American citizen, Henry Meigs, whose name is connected with many enterprises throughout South America, completed this railway as far as Santiago in 1863, nearly 60 years ago.

According to a report by one of the general engineers of the company undertaking electrification of the Chilean railways the first step in the electrification project comprises 10 per cent of the entire route mileage of the State railways' broad-gauge line and is the most extensive piece of railway electrification yet undertaken in South America.



Courtesy of The Pan-American Magazine.

THE MAITENES PLANT: SAND TRAP WITH SLUICE-GATES.

Among the benefits accruing through this electrification, the reports point out the following: The cost of hydroelectric energy for train propulsion will be much less than the cost of coal used in the present system. Maintenance costs of locomotives will be greatly reduced. Cars at present hauling coal for the locomotives on the line to be electrified will be released for use in paying freight service. Crew expenses will be reduced by reason of larger train units and reduced running time.

Another very important consideration is that the present electrification of the first zone of the Chilean railways will release the steam power at present used in that zone for employment in the zones south of the city of Santiago. These southern zones are at the present time in great need of the equipment, both motive power and rolling stock,



Courtesy of The Pan-American Magazine

THE MAITENES PLANT: SPILLWAY.

for carrying the products of the southern part of Chile. Specifically it might be observed that the great forests of the southern part of Chile are yet to be fully exploited and will necessitate further extension of the country's railway system and improved transportation over the existing system. This improved transportation will, it is hoped, be in great measure facilitated by the diversion to southern Chile of steam equipment now used on the Santiago-Valparaiso Railway.

The present electrification will for all these reasons have a far-reaching effect, not only upon the economic and industrial developments of Chile, but likewise directly and indirectly upon Chile's trade with the nations of the world.

THE VAST COLOMBIAN LLANURA

By C. T. MASON.

AS a descriptive work on the Colombian lowlands, Miguel Triana's *Al Meta*, published at Bogotá, forms a most valuable addition to the very few books that have been written about that part of Colombia which lies beyond the Andes. The work was designed not solely for the purpose of describing the watershed of the Meta River, but to awaken in the minds of Colombia's public men a patriotic interest in these vast, fertile, waste lands, as yet unclaimed by civilization. There is a final constructive chapter in which the author presents a carefully thought-out plan whereby the Llanura might be made to yield its wealth for the benefit of thousands of settlers and for the good of the country in general. The opening of the Panama Canal, he thinks, makes it necessary that his Government should take steps to develop the natural resources of these immense plains before the eyes of others than Colombians are drawn thither. "The problems of socialism and anarchism," he writes, "which threaten death to the peoples of the old continents, will find their solution at the expense of our supineness." He believes, too, that there is danger of the Japanese and Chinese finding their way to the Llanura and there establishing unwelcomed colonies.

The river Meta is one of the great tributaries of the Orinoco. Farther southward, and also crossing the Llanura, is another important confluent of the Orinoco, the Rio Guaviare, which joins the Orinoco at the Venezuelan frontier town of San Fernando de Atabapo. While the lowlands extend still farther south, to the Río Zapara and the Brazilian border, the Llanura described by Sr. Triana is that fertile and much watered region that lies between the Guaviare and the Meta and, north of the Meta, to the Venezuelan frontier on the other side of the Arauca River. This area embraces the Territory of Casanare, north of the Meta; the Territory of San Martín, south of it, and between them the Territory of the Meta. Walled in on the west by the Andes and on the north and east by Venezuela, this vast plain would, indeed, seem to offer a grazing and agricultural paradise unexcelled elsewhere in Latin America.

To reach the Llanura from Bogotá there is a good mule road, 110 kilometers long, to Villavicencio at the foot of the Cordilleras. This

little town of 2,400 inhabitants forms the center of an agricultural district which, like all the others at the base of the Andes, produces abundantly of coffee, cacao, yuca, taberna, and bananas. It and the other similar villages scattered along the foot of the Cordilleras are the outposts of civilization in this part of Colombia. Villavicencio is the seat of the political and ecclesiastical governments of the Territory of the Meta, or rather it is from this place that the social principle irradiates toward the Llanura. For lack of highways, however, both legal and moral obligations are entirely voluntary matters for the plainsmen. "Between Bogotá and Cáqueza there is a road; between Cáqueza and Villavicencio there is a mule track; between



MAP SHOWING LOCATION OF THE COLOMBIAN LLANURA.

Villavicencio and the Meta there are points of the compass. The center of energy which, under the name of government, exists at Bogotá, functions with relative efficiency in the little nucleus of Cáqueza, hardly functions in Villavicencio, and ceases entirely to operate in the remote magistracies of the Meta." The establishment of a local center of government in the heart of the Llanura—the author selects Orocué at the Venezuelan frontier—would be of immense benefit to the entire region.

Twelve leagues south from Villavicencio is San Martín, another of the outposts—a place now of little over a thousand inhabitants but once, at the time of the Conquest, a town of considerable importance. At that period it was the center of commercial life for

the plainsmen of the Meta, densely populated by civilized Indians of Inca extract, and in communication with Peru, as "it was from here that Hernán Perez de Quesada led his expedition to Pasto, by way of the Sibundoy Valley." At the village of Santiago, in the valley, there survives a colony of Peruvian Indians who still speak the pure Quichua idiom. In the words of the author:

That communication existed, and over a good road, is unquestionable; since it was by that means that the Conquistador rode southward, along the foot of the Cordillera, in quest of El Dorado, concerning which the Canaguare Indians residing at San Martín had given information, pointing towards Cuaco. . . . There is a tradition to the effect that at San Juan de los Llanos a certain Captain Juan de Avellaneda, protector of the Canaguare, assisted the Quesada expedition by furnishing the considerable sum of 40,000 gold ducats, which he collected among the Indians. Another tradition of the Conquest that is still preserved in connection with San Martín, relates that it was here that Frederman shod his horses with gold in order to undertake the ascent of the Cordillera. . . . These two traditions would seem to show that in the vicinity of the present village of San Martín the Indians, prior to the Conquest, extracted great quantities of gold from the earth. Furthermore, it is known that Father Martínez, *cura* of San Martín, some fifty years ago, bought gold or exchanged silver for it of an old Indian who styled himself the Last of the Canaguare and possessor of the secret of the mine.

Skirting the Cordilleras, from the Arauca River to San Martín, passing through the settlements of Tamará, Nunchia, Labranza-grande, Medina, and Villavicencio, is an indifferent highway which acts as the connecting chain between the many savannas formed by the streams descending from the Andes and flowing into the Meta. This road, which was utilized by the army of liberation in 1819, performs the same mission on land which is performed by the Meta as a river and will doubtless be the future great highway of the Llanura, possibly as a railroad with a branch to Bogotá. Another road down the Andes from Bogotá, other than that already referred to which leads to Villavicencio, is the road to Medina through Gachetá, capital of the Province of Guavio. From this last place a mule track branches off towards the valley of Tensa and the town of Gachalá, which is connected with Medina by another mule path over the foothills of the Cordillera. There is also another way of reaching the lowlands, namely, from Miraflores, in the district of Boyacá, along the Lengupá river to the Meta, a five days' journey on mule back. Yet another road is that from Sogamoso, around Lake Tota and through the Pass of Boquita to Chameza, where connection is made overland for the Meta by canoe down the Cusiana river. From Sogamoso there is also a road over the mountains to Labranzagrande and on to Oracué known as the Road of the Cravo, but owing to the presence of hostile Indians (the Guahibos), the lone traveler diverts his course to the Pauto River. This is one of the most important tributaries of the

Meta and is navigable by steam launches as far up as the village of Trinidad, the commercial center of the Casanare Territory and the outlet for its cattle ranches. From Trinidad the journey to Pore may be performed in two days, and here connection is made with the road that, starting from the Arauca, crosses the open Llanura along the foot of the Andes.

All this region, lying under the shadow of the Cordilleras, is thickly wooded, the forests extending like a fringe around the Llanura. Conspicuous as one of the features of these woods are the numerous salt deposits that exist among the foothills and adjacent to them and



Courtesy of the American Museum of Natural History

A SCENE ON THE BOGOTÁ-VILLAVICENCIO TRAIL, NEAR CÁQUEZA.

The road leaves the floor of the valley at the right.

which, if properly developed, would exert a considerable influence in the life of these Colombian lowlands. Not far from Villavicencio are the salt mines of Upin, producing annually about 18,000 arrobas of rock salt and exploited in a manner by the Government. There are also numerous salt springs, from some of which as much as 25,000 arrobas were taken monthly prior to 1913. This particular salt is highly esteemed for its quality even beyond the Cordilleras and preferred at Bogotá to the imported article. Vast as these resources are, owing to the very crude methods of working them, the quantity of salt extracted is far from sufficient to meet the local demand, especially of the cattle ranches.

Of the first impressions of the Llanura which one obtains on issuing from these deep sub-Andean woods some graphic pictures are drawn in the ninth chapter of *Al Meta*:

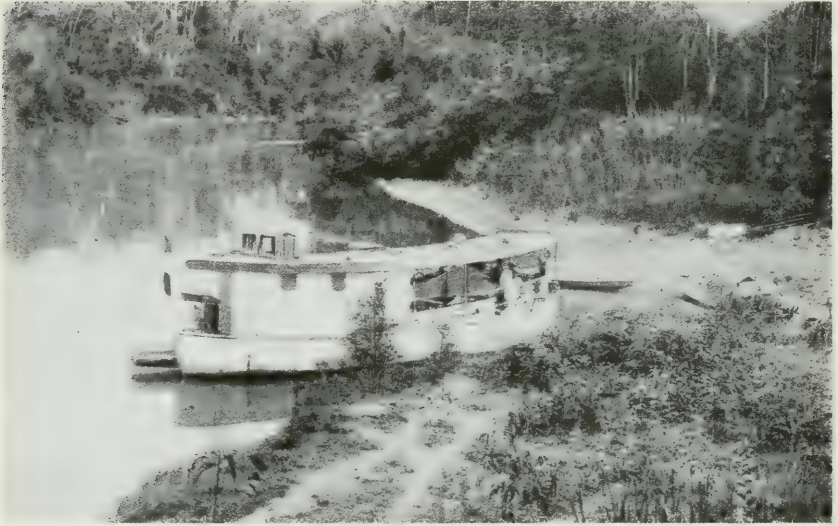
The vastness of it, like that of the ocean, inspires one with a sense of adventure: the seduction of the unknown is felt; there comes the urging of wanderlust. The loneliness, the silence, the strong wind blowing like a messenger from empty regions; the melancholy remoteness of the interminable lines of trees, all evoke the emotions of a parting. . . . As they say at Villavicencio, "leagues and hours are long on the Llanura;" an inhabitant of these lowlands, wishing to express distance, whether in lineal magnitude or in the time spent in covering it, adheres naturally to the conceptions of space to which he is accustomed. The immensity teaches him that leagues and hours are here but steps and seconds of time. . . . Man on the savanna is less than an ant; a kilometer away his sombrero is visible; at two kilometers he has disappeared among the tall grass. . . . This illusion of magnitude results in diminishing the panorama, and hence much of the magnificence of the landscape is lost on the mind of the beholder.

Like the ocean, the landscape of the Llanura is somewhat monotonous. On both sides of one stretches an almost straight line of woods, now lost in the distance, now broken up in the form of peninsulas. They are as oases in the desert and indicate the path to be followed. Through them run small watercourses known locally as *caños*, indispensable to the life of the locality and having usually in their vicinity some signs of man's cultivation, or one of the cattle ranches may be close by. They divide the savannas into separate sections and thereby establish definite boundaries from the Cordillera to the Meta.

As might be supposed, the surface of these plains is not entirely level; rather it presents the general aspects of a rolling country, interspersed with flat stretches, forming ridges in certain places, and in others sinking into very perceptible hollows. The hillocks are known as *lomas* and are especially characteristic of the savannas between the Guayariba and the Catequía rivers. The soil is in parts high and dry, but is sometimes low and swampy. The dry portions are distinguished by a curious formation of the soil, which is termed locally *soral*—an expanse of deep cracks in the superficial crust that is dry in summer but very muddy and slippery during the rainy seasons. They constitute a grave danger for straying cattle, and of all the risks of the Llanura, not even excepting tigers, are the one most to be feared.

The rainy season in this part of Colombia begins about the end of March, reaches its maximum in June, and continues at a diminishing rate until December, with a short abatement in August. Taking the year 1882 as an average, the rainfall is about 127 inches during the season, the heaviest being 28 inches in June. The winter months are marked by furious rainstorms, alternated by days of sunshine and strong winds. The average temperature in the lowlands during the day is 35° C., but the heat is bearable and rendered even pleasant

on account of the breeze which blows from the east during all the summer months. This dry wind performs a beneficial service when the ground is being burned; in fact without it the destruction of the stubble would be impossible. For this reason the burning always takes place in summer, when the air of the savanna is filled with smoke and the horizon ceases to present the limpidity that prevails during the winter. At night the progress of the fire over these vast lowlands and the reddened sky present a truly magnificent spectacle.



A STEAM LAUNCH ON THE META.

The river Meta is one of the great tributaries of the Orinoco. Along its upper courses, not far from Villavicencio, the river measures more than 300 feet across and is sufficiently deep for steam navigation.

Another characteristic of the meteorology of the Llanura is what is known as "prairie ice," the phenomenon of which the author thus describes:

It is an aqueous meteor that occurs on the hot savanna identical in form and effect to what is called "frost" on the savanna of Bogota. In neither place is ice or hoarfrost met with; but in both localities the condensation of the aqueous vapor in the saturated atmosphere assumes at times the form of a very fine dust which, on being struck by the sun's rays, resumes at once the state of vapor along with sudden abstraction of heat from the leaves and shoots on which the dust was deposited. This instantaneous withdrawal of heat, produced by the fine condensated dust on the tender vegetation, acts in the same way as does the frigorific mixture in an ice-cream freezer; it congeals the vegetable sap and destroys the tissues with an effect similar to burning. Whatever the hypothesis adopted to explain this phenomenon of ice, the fact remains that both on the savanna of Bogota, at 2,800 meters above sea level and 14° C. of mean temperature, and on the Llanura at 200 meters above the sea and 28° C. of temperature, this meteor occurs identical in appearance and results.

The phenomenon is doubtless intensified by the abundant dew fall prevalent at all times, even during the rainless months. This heavy dew in the dry seasons, when the brooks and water holes have dried up, saves the vegetation and herbage, which would be entirely destroyed were it not for this and the nature of the subsoil. This is formed by alternate strata of sand, gravel, and loose stones, through which percolates the subterraneous water that constantly filters down from the Cordillera. The first stratum of gravel under the vegetable soil extends 25 leagues from the foot of the mountains, at a depth of five to seven feet, so that the sinking of wells for domestic use is easily carried out by the settlers. The existence of this infiltration, so characteristic of the Llanura, would render the digging of irrigation trenches an easy matter, and would solve the chief problem of cattle ranches during the dry months.

The inhabitants of the Llanura are divided into Colombians, naturalized Venezuelans, and Indians of different tribes, more or less civilized. The two first constitute the real plainsmen—the *Llaneros*.

The extent of the horizon intensifying his senses, the Llanero can distinguish at a considerable distance a cow from a bull and one head of cattle from another. The shouting of the deer hunters and their signals are understood by him from one end of a savanna to another. The perception of noises in this son of the Pampa is really marvelous; he hears and distinguishes the tread of swine, the cooing of peafowls, the rustling of wild beasts in the distant woods. The uniformity of the landscape, the always horizontal line of the ground, the simple life he leads develop in him, by the law of contrast, a mental imagery that reflects itself in metaphorical language, in fantastic superstition, and in tales of the impossible. The Llanero speaks with slow cadence, but his conversation is seductive and anecdotal. His stories are graphic and full of movement; in his narratives one sees the tiger stalking majestically across the plain, hears the noise of the rattlesnake, perceives the swift running of the deer. . . . The muse is deserting the Llanura with the colonization from the Cordillera. The popular poets, who improvised the *galerones* (folk songs of the Llanura) to the sound of the local fiddle and tambourine in the *fandango* dances, have already disappeared, but their verses still linger in the memory of the light-hearted Llaneros, themselves destined to disappear.

The hospitality of the plainsman is characteristic and due, doubtless, to the loneliness of his surroundings. He seldom sees a stranger, but the stranger is always welcome. "At first the Llanero appears discreet in his intimacies, owing to his timidity; but he soon opens his heart, reveals his secrets, and tells his history." The constant struggle that he wages with the wild beasts of the plains and his never-ending defiance of dangers have bred in him a stoic courage of which he himself seems oblivious. Indolence, dexterity, generosity, and courage are the traits that the Llanura breeds in her children. Physically they are influenced by the heat and the food they eat; they are swarthy, with brilliant black eyes, of medium height, and rather lean. These, at least, are the typical characteristics of the settled plainsman as contrasted with the other Colombians who are immigrating daily from the Cordilleras and who are tending to neutralize

the influence of the lowlands. These influences, however, we are told, are too formidable and tenacious to be easily overcome. "Between the mountain and the plain a struggle is, in fact, taking place; the Cordillera sends its husky sons and the Llanura enfeebles them; if they are diligent, the Llanura makes them indolent; if they are niggardly and peaceful, the Llanura makes them prodigal and boisterous; if timid, the Llanura makes them audacious. But before the transformation is complete death reaps 7 per cent annually of those unsuited for this adaptation." Of those, however, who have availed themselves of the possibilities which the lowlands offer to the deserving immigrant, it is said that they have prospered wonderfully. Many a young and discontented "Highlander" has found the means of expansion on the wide pampas and won, if not wealth, at least independence and self-respect. This slow but persistent influx to the plains will in time furnish the Llanura with the population it so sorely needs. The migration, however, is not confined to Colombians alone, but is being shared by immigrants from Venezuela, many of whom have shown themselves leaders in the colonization of the low-lands, either as large ranch owners, shopkeepers, or developers of transportation enterprises. These Venezuelans, being better acclimatized by reason of their long wandering across their own plains, exercise a predominant influence in these regions, even over the Colombians from the Cordillera in whom there is Indian blood. It must not be overlooked, however, that in all these immigrants there exists a marked strain of Andalusian blood, a fact that may account for the mental agility so noticeable in the plainsman. Of the Indians, who form the third ethnical element of the population and who still regard the others as usurpers of the land, it is said that their importance is rapidly declining and that, in contact with the dominating races, they have degenerated rather than advanced. Those that are not savages are but partly civilized; but all, if brought under proper humanizing influences, such as missions might exert, appear capable of improvement. The Sálivas, who are the most peaceable and industrious, have furnished much of the labor on the ranches and farms and are the most dependable of all the tribes.

The cultivation of the soil is the first step taken by the immigrant, who establishes his small farm along the banks of the watercourses, where he grows bananas, coffee, yucca, taberna, and cocoa. A little sugar cane is also cultivated and its juice extracted by a hand mill. Work on these small farms occupies the owners generally in the winter months, the summer being devoted to contract labor on the larger plantations. This continues until, by enlarging his holdings, the settler is able to give his entire time to his own property and to employ labor himself. There is a considerable number of these small farms scattered over the Llanura and usually situated at a distance one from the other. This is due to the necessity of choosing the best

meadows, a permanent supply of water, proximity to a navigable river and to a source of labor, chiefly among the Sáliva Indians, and also in order to make it possible to raise large herds of cattle without interference from neighboring ranches.

Among the industries that occupy the plainsmen is the gathering of rubber from a tree that grows wild on the Llanura and rough lumps of which are encountered in almost every hut from Villavicencio to the Meta, awaiting shipment to Bogota or, via the Casanare River, to the Orinoco and Ciudad Bolívar. Another vegetable product of the region is the oil of copaiba, which is extracted from an immense



Courtesy of The Geographical Review.

A RUBBER COLLECTOR'S CAMP.

Note the large rubber pellets, or balls, on the horizontal poles supported by forked stakes, formed by the coagulation of successive layers of the latex.

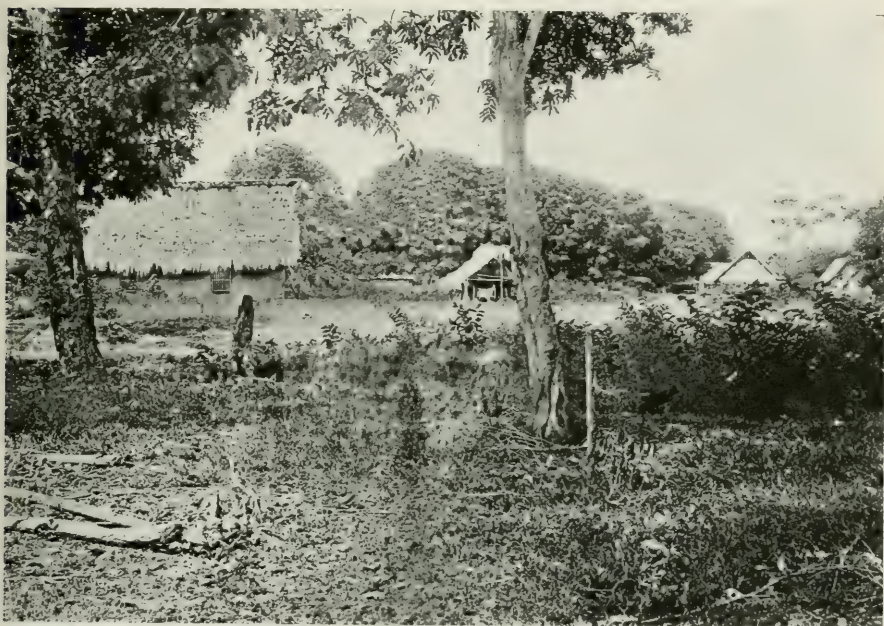
tree by boring about six feet from the ground into the center of the trunk, plugging the hole, and allowing the perfumed oil to accumulate from the central vein for about a month. Rice is also grown in suitable localities, the soil being plowed in the first month of winter and the operation repeated four or five times before the seed is sown. The best variety of rice for these places is the upland or Japan rice. Cotton could also be raised on a large scale, as this is rendered possible by the cessation of the rains in November, and as soon as cheap transportation to and down the rivers can be obtained this industry will doubtless receive attention. The same may be said regarding the cultivation of the sugar cane in an important manner. Owing to

the mean temperature and the quality of the soil, the canes can be cut for the first time 10 months after planting and the ratoons in 9 months. The first two crops yield about 800 arrobas per hectare, but thereafter the production hardly warrants continuing the field, and a new one is generally started. Under present conditions a hectare produces from 25 to 40 mule loads of saw sugar, but with scientific methods a much better showing could be obtained, as both soil and climate are favorable to the industry.

The most important cultures of these lowlands and the ones for which they seem best suited are bananas, cacao, and sarrapia. The first mentioned produces a crop in 10 to 12 months and the tree continues to yield fruit until its sixth year, when a new one is planted in its place. The average number of bunches to a tree is about three, of 100 fruit each; but there are trees that yield five bunches of 60 fruit each, or 300 bananas annually. Apart from the raising of the fruit as such, the cultivation of the banana for the production of flour offers a considerable industry, particularly for exportation. The cacao trees are easily raised in conjunction with the banana, as the latter acts as a shade for the young plants. A cacao tree attains maturity in its fifth year, when it may be expected to yield 1 pound of beans, this increasing under normal condition to $1\frac{1}{4}$ pounds in the sixth year and in some instances to as much as six pounds.

Preferable to the cacao, however, is the cultivation of the sarrapia wherever the soil conditions permit. The tree is indigenous to the region and grows wild in large groves. The nomad tribes of the Orinoco exploit these groves and do a thriving business along this river and its tributaries. The altitude at which the trees grow and thrive luxuriantly under cultivation is between that of Villavicencio and Medina, 550 meters above sea level, and that along the low banks of the Orinoco, 97 meters above the sea, where they grow wild. The seeds, known as the tonka bean, are very aromatic and are much used in perfumery and as a flavoring extract. They are also employed in medicine, principally as a stimulant. The cultivation of the sarrapia is first begun in seeding beds, well broken up, fertilized with dung, shaded, and watered; the seed sprouts in from 10 to 12 days and as soon as the young plant has attained a growth of 16 inches, which it does in six or eight months, it can be transplanted to rich soil, laid out in triangular form, lightly shaded, and from 13 to 16 feet allowed between each plant. The transplanting is done in April, or just prior to the rainy weather. Along the Orinoco and the Meta the wild sarrapia groves occur on high and dry ground, and in planting care must be taken to avoid the risk of inundation, as too much water is destructive to the tree. When the sarrapia has reached the age of three years, the shade trees must be removed and the ground cleared of all grass, vines and parasites. Up to the tenth

year the tree remains slender and sparse of foliage, but at maturity it becomes as leafy as the mango, which it somewhat resembles. The gathering of the crop begins in summer, when the fruit is ripe and falls of its own accord, although it is best to assist this by prodding. The maximum crop is harvested in the first months of winter, so that the collection of the fruit may be said to last six months. When fully ripe, the fruit, which is very similar to the mango, measures about 3 inches, the outer shell having a strong nauseating smell. Inside this shell there is a fibrous meat inclosing the kernel, within which is the precious bean, rich in perfume. When first exposed, the



Courtesy of The Geographical Review.

MAIPURES.

A settlement on the Rio Tuparo a short distance above the place where it flows into the Orinoco. In the background may be seen a clump of sarrapia trees. Back of this village are vast plains capable of supporting great herds of cattle.

bean, which measures about $1\frac{1}{4}$ inches long, is of a whitish hue, but darkens as it dries. A hectare will accommodate from 650 to 700 sarrapia trees, planted 13 feet apart, and will produce in five years about 1,000 pounds of bean, valued at \$4,000, increasing the output yearly until a very large income can be obtained from a small plantation. "There is nothing in the wealth of the Torrid Zone," remarks the author, "comparable to the sarrapia; neither the quebrache of Argentina, the guano of Peru and Chile, the cacao of Ecuador, the coffee of Brazil, nor the tobacco of Cuba."

Agriculture plays a secondary part, however, in the life of the Llanura, the ultimate object of every plainsman being to raise cattle. The

small farms referred to are really potential cattle ranches, on which the cultivation of the soil will be purely subsidiary. The future of the country may truthfully be said to depend on cattle raising. Within the 16,000,000 hectares of pasture land in the Territory of the Meta there is estimated to be room now for no more than 5,000,000 heads of cattle, owing to the inferiority of the natural grasses; but with improved pasturage 32,000,000 head could be raised. In the savannas of Casanare there are 3,000,000 hectares that could support 1,000,000 head of cattle, and with cultivation more than twice that number; at present, however, little over 100,000 are being raised. In the Arauca district the 2,500,000 hectares could support 800,000 head with neither irrigation nor cultivation, and 5,000,000 if the pasturage were improved. In the three Territories (Meta, Casanare, and Arauca) the present number of cattle amounts to only 270,000, while under prevailing conditions this number could easily be increased to 6,800,000, and with improved conditions to 26,000,000. In the Arauca district there is now a head of cattle for every 17 hectares of pasture; in Casanare one head for each 30 hectares, and in the Territory of the Meta one head for each 8,000 hectares. The importance of the industry depends to a considerable degree on the development of the salt deposits. In the Territory of the Meta, where there are the salt works of Upín, the cattle are not only prolific but well nourished and tame; while those of Casanare and Arauca, where the salt industry has been neglected, are stunted, scraggy, and wild. In these Territories the price of salt is \$6 per arroba; in the Territory of the Meta it is only 20 cents.

The prospective settler is advised to pay a preliminary visit to the Llanura in order to learn at first hand the cost of labor, the expense of clearing the land, the price of the ranch, the number and price of the domestic animals he will require, such as the dog, cow, burro, pig, fowls, etc.; also the cost of the necessary implements. The author estimated that with an investment of \$1,000 a plantation of 17 hectares (about 15 acres) of bananas and sarrapia could be established. The most desirable locations are along the banks of the Pauto and Cravo Rivers, which are connected by road with Sogomoso; of the Cusiana River, which communicates with the populated Tensa Valley; of the Casanare River, which is in communication with the north of Boyacá; and of the Arauca River, which is in communication with Pamplona.

Along the upper courses, not far from Villavicencio, the Meta measures more than 300 feet across and is sufficiently deep for steam navigation. The first river port is Barrigón, where the Meta receives the waters of the Cordillera by two principal streams, one of which, the Río Humadea, is navigable by launches as far up as the village of Jiramena. In these upper reaches of the Meta, about 650 feet above

sea level, we have the assurance of the author that "sea fish make their appearance during the equinox and that dolphins there disport themselves as they do in the Atlantic." At Barrigón a Government mail canoe may be taken every 10 days to Cabuyaro or to Orocué, from which point small steamboats are available down the Meta to the Orinoco and to Ciudad Bolívar. If the mail canoe is missed, it will be necessary for the traveler to hire a canoe and its crew and to provide himself with salt for any possible meeting with hostile Indians. The 8 or 10 leagues from Barrigón to Cabuyaro can be accomplished in a day and a half. Cabuyaro, on the left bank of the Meta (here nearly 1,000 feet wide), is a place of only 200 inhabitants, but enjoys considerable importance as the river point for Medina, 15 leagues distant, and will be the future chief river port of this region, as Honda is at present of the Magdalena. Below this point the river admits of vessels drawing 5 feet of water, and from here to Orocué is four days' journey by canoe. At the island of Güira the Meta assumes a width of 3,300 feet, and a few hours' journey brings the traveler to the partly ruined town of Maquivor, once a pueblo of some importance and situated a little over 600 feet above sea level. Here the Meta more than doubles the volume of its waters and continues to broaden out, owing to the islands and sand banks that are constantly forming new channels in the stream. The Llanura is here almost perfectly level; the current becomes more winding and sluggish; and expanses of inundated ground appear, this being caused by the additional volume of water which the Meta receives from its tributaries. The principal of these are the Upía, Tua, Cusiana, and Cravo Rivers on the left bank and the Yacube and Manacacias Rivers on the right bank. Between the Cusiana and the Cravo the waters of the Tocaria, Pauto, Ariporo, and Casanare Rivers also empty into the Meta. The banks are shaded with groves of copaiba, sarrapia, palm, and rubber trees; while the stream abounds with fish, from the tiny sardine to the huge manatí, weighing 500 pounds.

Orocué, on the Venezuelan frontier, and 120 leagues from where the Meta empties into the Orinoco, is the principal trading center of the Llanura and has a customhouse. The merchants maintain a regular service of three steam launches, as well as a great number of canoes and "bongos" for the transportation of merchandise to and from Ciudad Bolívar. The town has a population of about 600 inhabitants and is situated in a high glen on the left bank of the river. There are several foreign business houses located here, and considerable business is carried on in imports and exports. Owing to its advantageous situation, Orocué seems destined to become the future trade center of all this lowland region and possibly the capital of the Llanura.

NEW TENDENCIES IN THE PUBLIC INSTRUCTION OF MEXICO¹

By E. LANDÁZURI.

MEXICO has begun a thorough reorganization of its educational system, one of the evidences, in my estimation, of increasing strength in our social system which, though bled almost to the point of exhaustion by so many years of civil strife, is once more returning to health and vigor.

The education of our people is one of the most pressing needs of the country to-day as, indeed, it has always been. Many of us feel this so strongly that the idea has become an obsession; it leads almost to fanaticism in the case of those who are dedicating their lives to its fulfillment; they have been converted into apostles, sent forth to preach the gospel of education.

There never has been in the past any government which so fully realized the importance of education, especially primary education, and the respect due the subject; now, however, this is not the case, for the work that is being done by the present Secretary of Public Instruction seems to be the first step toward the social reconstruction of the country. We are influenced especially in this belief by the natural way in which the reforms have been brought about. They could not have resulted from the efforts of one man; instead, behind these reforms there is a group, a group made up fortunately of both men and women, most of them young and belonging to the middle class, who have got a vision of the way social conditions may be improved through education. These are the people who have carried out the ideas of the Secretary to such an extent that even the public has responded, in some cases, to the call for educators. This makes us very optimistic, for if the idea of one man can be extended to a group and this group adopts it and tries to carry it out,

¹ The information upon which this article is based was supplied by the heads of the respective departments. Sr. César Morales, director of primary education, Srta. Elena Torres, director of the department of school lunches; Sr. Luis V. Massieu, head of the department of technical training; Srta. Jaso, principal of the Domestic Science School; and Sr. Roberto Medellín, Assistant Secretary of Public Instruction, kindly made for my use abstracts of the work under their charge, and Sr. José Vasconcelos, the present Secretary of Public Instruction, granted me permission to visit schools and departments. I wish to express my most hearty thanks to all these for the help they have given me.—E. L.

it is not confined to the individual brain where it originated. Moreover, if this group in turn is expressing public sentiment, when that man dies, or the group is scattered, other men will come forward to complete the task. This seems to be the case in Mexico, and for that reason the responsibility of those who are directing educational work is very great, since the confidence which many of us have in the movement they have initiated is likewise very great.



SEÑOR DON JOSÉ VASCONCELOS.

Secretary of Public Instruction of Mexico.

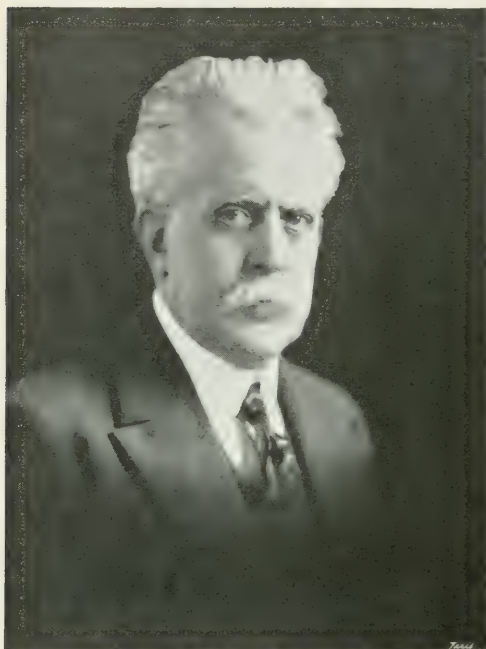
At the risk of tiring the readers of this article, we are going to take a glance at the different phases of the work that is now being carried on by the Department of Public Instruction of Mexico, in order to show something of what has been done and give grounds for our optimism.

THE CAMPAIGN AGAINST ILLITERACY.

A year and a half ago the Secretary of Public Instruction, at that time president of the university, made an appeal to everybody who

knew how to read and write, asking each one of them to teach 10 illiterate persons, promising as a reward to bestow upon them the degree of honorary teacher from the university. The response was immediate and generous, more than 3,000 persons registering as honorary teachers.

Simultaneously, the Government opened the school buildings in the evening to groups of illiterates, and manufacturers were urged to cooperate by establishing schools in their industrial plants, with



DR. GUILLERMO PARRA.

Director of the National School of Medicine.

the result that within a year and a half 40,000 illiterate people have learned to read. There has been some thought recently of forming an army of children to help wage the war against illiteracy. The profound significance of all these newly armed forces is not realized as yet. Would that every army had such a constructive purpose!

Do not suppose from this that we think citizenship consists in the ability to read and write; that is only a step in the right direction, a step, also, which often proves to be somewhat disappointing; but the fact remains that the illiterate who learns to read feels, and justly so,

that he belongs already in a class from which he has hitherto been excluded.

THE MISSIONARY TEACHERS.

Five months ago, a new department was created for the purpose of considering what would be the best method to use in developing the smaller Mexican communities composed principally of Indians. It was finally decided to establish mission centers among them for educational purposes. Teachers would be selected to live for four or five months in these hamlets and villages, gathering all the information necessary for understanding the local situation and, in addition, making good use of their stay by giving instruction and training to all who desired it. It was decided to call them "Missionary Teachers," because their work would seem to be a continuation of

the splendid missions conducted by those zealous friars who came with the "conquistadores" to New Spain. At present there are approximately 850 of these missionary teachers, and we are hoping to secure at least 10,000 by the end of the year. In view of the influence which these groups may be able to exert, there has been some thought recently of having them act in an advisory capacity to those who make our laws.

We believe that this movement, which is just as important as the campaign against illiteracy, of which, in a sense, it is a part, has many surprises in store. We had a detailed account recently of this mission work from a young teacher who was spending a year in an indigenous community in the Sierra de Puebla. At the end of the



A MISSIONARY TEACHER.

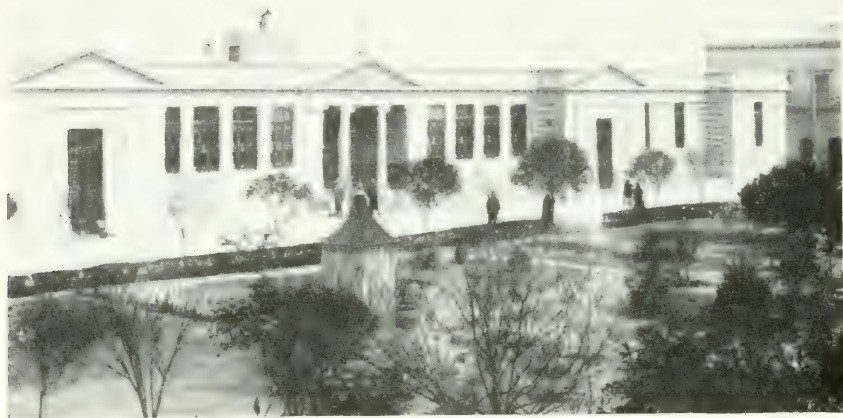
Teachers are selected to live for four or five months in smaller Mexican communities composed principally of Indians, gathering information for understanding the local situation and giving instruction and training to all who desire it. At present there are about 850 of these missionary teachers.

first three months of her stay all the Indians were bringing her their troubles; all the problems of this little community—health, social, domestic, and political—were passing through her hands.

Let the reader consider the vast amount of valuable information for the Government that these missionary teachers are going to gather. It means nothing less than that for the first time in our history we shall have something resembling a social survey of the Mexican Republic. We shall know, at last, something about our Indians, of whom until now we have known little or nothing beyond the fact that their characteristics, customs, and beliefs are greatly diversified. How to unify such a heterogeneous group, scattered over such a vast territory, with often only very primitive means of communication with the capital, has always been one of the most serious prob-

lems faced by the Mexican Government. The Federal representatives and the political leaders, who were responsible for its solution, did not succeed as they expected. Perhaps the missionary teacher who has no authority, who is not carrying out any instructions, who goes to give and not to receive, may become the link which will unite all the different elements in the country, making, in this way, a foundation for true nationality.

The Government is far from satisfied with what has been accomplished up to date, but infinitely to be preferred is dissatisfaction, to complacent satisfaction on their part. It is true that the teachers



MODEL SCHOOL, SAN LUIS POTOSÍ.

in many cases lack some of the very necessities of life; that their equipment is meager; that even the judgment of some of them is not as reliable as might be desired; that not all of them realize the importance of their mission; but this merely shows that, in this, as in every new work, it is necessary to make the tools needed for carrying it on, and that the only way to do this is by doing it. Twenty or thirty years from now Mexico will reap the harvest from the seed that is being sown and we shall then be in a position to judge the work and improve upon it.

PRIMARY EDUCATION.

At the beginning of this year, the Department of Public Instruction had to solve a rather difficult problem in connection with primary education. A short time ago the municipal authorities, by constitutional ruling, were granted liberty of action, municipal education thereafter depending entirely upon them; but often the municipal

authorities were lacking in means to proceed according to the program which had been agreed upon in the capital. On the other hand, the liberty which they had just received, and which was naturally very pleasing to them, became a stumbling block when there was a question of intervention on the part of the metropolis. Nevertheless, there was such a general desire for popular education according to the best methods, that the municipal authorities, far from putting obstacles in the way, manifested their eagerness to cooperate with the capital, so much so that, after discussing every case separately, they came to an agreement in connection with each. It is a fact, however, that all the municipal teachers now depend upon the Federal Government, and that the methods and programs are worked out in the capital for use and adaptation in the other towns and



THE HIGH SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION, MEXICO CITY.

cities. When the funds of the municipality permit, the latter furnishes a place for the school and part of the funds and, sometimes, it puts up new buildings. If the funds of the municipality are insufficient the Federal Government furnishes the amount required and also the teachers; in this way an effort has been made to increase the number of primary schools and this effort has been successful to a degree. Municipal teachers have been sent to establish schools in neighboring rural localities, other teachers being sent from the capital to act as substitutes during their absence.

Since January, 1922, 17 new schools have been opened in the towns dependent upon the Federal district, and the following statistics show the impetus that has been given of late to primary education in general:

1921.		1922.	
Primary schools.....	32	Primary schools.....	110
Kindergartens.....	5	Kindergartens.....	15
Night schools.....	23	Night schools.....	34

These figures do not include the municipal schools which are dependent upon the capital and which by themselves number as follows:

Primary and rural schools	152
Kindergartens	1
Night schools	51

Both the municipal schools referred to and those of the capital are included in the national registration, but it should be noted that the increase in the number of schools is not due simply to the greater number of new municipal schools. Compare the registration of 1921 with that of 1922:



THE NATIONAL SCHOOL OF ARTS AND CRAFTS FOR MEN IN MEXICO CITY.

Registration for 1921:

Primary schools	13,407
Kindergartens	992
Night schools	4,480
Total	18,979

Registration for 1922:

Primary and rural schools ...	82,527
Kindergartens	4,150
Night schools	11,025
Total	97,702
Increase	78,723

The budget allowance for this item was 3,713,946 pesos; now it amounts to 8,941,310.50 pesos. The nation is responding most generously to the effort which is being put into the work and when the country has been thoroughly reorganized, put upon a good economic basis, and freed from some of the obstacles that are impeding progress at present, the Government will be able to double the appropriation for schools. The development of the nation will then be evident from the number of schools that it possesses.

Another important point is the centralization of the educational system. Until now no effort had been made to establish a uniform system for the schools of the Republic, but the need was amply demonstrated by the inadequate methods used in some of the States. Now, however, the educational system for the whole country is determined at headquarters, in the capital. Fortunately, the attitude of the Government is an intelligent one, and broad enough to permit of considerable elasticity in the matter of conforming to programs in each special case, and in the making of all kinds of experiments which might lead to improvement of the present educational system.

The tendency in these experiments, as in other things, is to respect the individuality of the pupil, to promote research work, and to get free from traditional methods. In some cases, as in the case of "The School for the Illiterate" (Casa del Analfabeto) in the Colonia de la Bolsa, the results have been satisfactory from every point of view. Unfortunately, it is impossible to do justice to this subject within the limited space of this article, as it requires a separate paper.

THE WORK IN THE STATES.

As in the case of the municipalities, and following the plan of cooperation between two political divisions, the Government at the capital sent delegates to ascertain the situation in each State, and, following the recommendations in the resulting reports, headquarters proceeded to cooperate to the best of its ability in order to develop whatever possibilities existed in each State.

The following figures show what has been accomplished in certain States of the Mexican Union, to date, in creating new work:

	New Delegates.	New Schools.	New Teachers.
State of Colima:			
Rural teachers.....			45
Delegates.....	2		
State of Durango:			
Rural teachers.....			80
Delegates.....	1		
Normal School.....		1	
State of Guanajuato:			
Rural teachers.....			74
Teachers for illiterates.....			2
Lecturers for improvement centers.....			4
Schools of Industrial Arts.....	4	5	
Delegates.....			6
Teachers for the experimental school in Irapuato.....		8	
State of Aguascalientes:			
Rural teachers.....			40
Delegates.....	1		
Total.....	5	14	251

In the States of Guerrero, Tlaxcala, Morelos, and Mexico the capital appropriates half the amount stated in the budget and limits itself to sanctioning whatever these States plan to do in the way of public educational work. The latter appoint the teachers, establish such

schools as may be needed, and decide upon the kind of school. The total budget of the States mentioned amounts to 269,079 pesos. This does not include the work of the missionary teachers already described. In addition, many schools have been rebuilt and equipped.

Twenty-eight States have now received visits from delegates, who are studying the situation at first hand in order to find out the best way to stimulate the educational movement.



THE NATIONAL SCHOOL OF ARTS AND CRAFTS FOR WOMEN,
MEXICO CITY.

The work of these delegates is of peculiar significance, as there is scarcely anything that will make a greater contribution toward the formation of a national spirit. These delegates are the links which connect the capital—which might be called the brain of Mexico—with the States, which represent the vital organs, and which until now have been too much and too far isolated.

Some idea of what has been done in the capital, especially along the lines of technical training, will be obtained from the following paragraphs:

TECHNICAL HIGH SCHOOLS.

An effort is really being made to create an intelligent middle class, that class which plays such an important rôle in any nation. Because of class prejudice, the majority of well-to-do people in the past have wished their sons to be professional men and, as a result, the country has now more of these than are needed and too few skilled mechanics. The problem, therefore, was to establish schools so well organized and so attractive that the upper class could not well either ignore or disdain them, while at the same time the middle class would find in them the special training to which they were entitled. Among these, the "Escuela Técnica de Ingenieros" has for some time been building up a reputation. The courses of study offered are similar to those in the Lewis Institute of Technology in Chicago, one difference being that in Mexico the training for architects is given in the School of Fine Arts and the School for Mining Engineers. The Government spends 1,775,000 pesos annually on this school alone. Eight new technical schools will be opened within a short time. Two of them indeed have already begun to function and, if the others have not done so, it has been largely for lack of buildings, the housing situation in Mexico being very critical just now. The following figures show the number of technical schools at the present time and their enrollment:

	Enroll- ment in day classes.	Enroll- ment in evening classes.
School of Electrical Engineering.....	479	248
School of Industrial Arts for Young Women.....	1,603	827
School of Commerce and Business Administration (for both sexes).....	1,013	.....
Commercial School for Young Women.....	670	615
Doctor Mora Commercial School.....	187	651
Domestic Science School.....	438	358
School of Arts and Crafts for Young Women.....	874	570
School of Typewriting.....	585	.....
"Escuela Gabriela Mistral" for Young Women.....	644	355
Total.....	6,493	3,624

This is only a beginning, for we hope to have three times as many schools and pupils within a few years. But we have at least begun to solve one of the most pressing problems by the creation of a real middle class, and the people back of this movement are creating the nation in the truest sense of the word.

One of the two new schools already in operation is the "Escuela de Ciencias Domésticas," which gives a course of training for the home and for society to the young woman who does not expect to follow a professional career. This school offers the same courses in domestic science as would be found in any school of its kind in the United States. As it is altogether modern, it has the facilities for employing the best methods and even for working out its own, if necessary. For instance, in the past we did not teach dietetics, but



THE SCHOOL OF DOMESTIC SCIENCE, MEXICO CITY.

Upper: The cooking class. Lower: Younger pupils being taught the correct manner of serving tea.

we are now studying the methods used in other countries, choosing from them and adapting them to our needs so far as our means permit. This school is already working out a course of study, so that it will soon be able to teach this important subject by modern methods.

It should be noted that this school was obliged to solve a unique problem, due to the conditions existing in the part of the city where it is located, in which the majority of the women belong to the working class, domestic servants predominating. These were the people in whom the school was most interested and at the same time they were the most difficult to reach because of their work, their lack of means, and their lack of culture (often absolute). They had also such diverse objectives that it was difficult to form them into groups. Six months ago, however, the school began to offer evening courses for domestic servants, which follow methods similar to those employed in social centers in the United States. Very small groups are formed so that the pupils may have consecutive individual attention from the teacher and each learn the particular thing that the teacher feels she most needs.

Within a short time the viewpoint of these domestic servants became sufficiently in harmony with the work to make it possible to form subgroups of those who expressed preference for the same subject, such as laundry work, cooking, or dressmaking. The pupils register in advance, and as soon as the required number have applied the class is formed. The appreciation shown by these women up to the present time is proof sufficient that these classes were needed and that in them are great possibilities for betterment.

Another interesting feature in connection with this school of domestic science, and one which gives promise for the future, is the organization of the school milk committee (*Gota de Leche*) and a health center which will operate as one of the departments of the school. The principal believes, and rightly so, that no one can be a good member of the community while in ignorance of the problems to be solved, or if incompetent to take an active part in solving them. The idea in establishing the "*Gota de Leche*," was to make it a laboratory for the child welfare students, just as the health center is a laboratory for the students of social hygiene. Both these subjects will be compulsory for the students taking the domestic science course, the ambition of the principal being to create in this way an army of social workers who will make themselves felt throughout the community in which they live, and who will have a distinct social viewpoint as well as the intellectual equipment for effective service. If this ambition is achieved it will become a very powerful factor in the reconstruction work of Mexico.

There are other activities sponsored by the department of public instruction, both interesting and helpful, and no account, however

brief, of the educational campaign in Mexico would be complete without some mention of the department of school lunches. About a year ago a medical report brought to light the fact that there existed a rapidly increasing percentage of undernourished children. As the Government had no funds with which to feed them, it was decided to ask the teachers to subscribe an amount sufficient to serve a light lunch daily to the most needy of these children.

Although the response was immediate and generous, the money raised was not sufficient to carry out such an extensive work. It was



THE INDUSTRIAL SCHOOL, QUERETARO.

therefore necessary to organize a department which would be responsible for feeding such children in the Federal District. This was no light task, in view of the fact that the Government until then had done absolutely nothing in this direction. At this critical moment Srta. Elena Torres volunteered to take charge of the work, and the result of her labors has been satisfactory in every way. She was able the first day to serve lunches to 50 children; at the present time the number has increased to 9,000 daily. Anyone who has seen the development of this marvelous work realizes what it holds of promise for the future.

At the beginning there was no kitchen and no supplies. An old storeroom, two piles of bricks, and a large cooking vessel were all that Srta. Torres had with which to begin her work. The first few days she prepared the lunches herself; now, having obtained the necessary funds, her equipment consists of a steam table with seven huge vessels, an electric toaster and the necessary dishes for serving the number of children mentioned. She has a staff of 12 employees who cook and serve the lunches and keep the whole place in order. When

recently Srta. Torres visited the department of school lunches in New York, she found to her satisfaction that the blanks she had devised for keeping a strict account of expenses incurred were almost identical with those used in that city. In other words, the two widely separated departments had solved the same problem in an identical manner.

The results obtained from serving school lunches are really remarkable, so much so that in the school for children suffering from skin diseases 75 per cent of the pupils have been dismissed as cured since receiving one meal a day under the auspices of the Government.

In conclusion, mention must be made of what has been accomplished along the lines of cultural education. This work fills us with

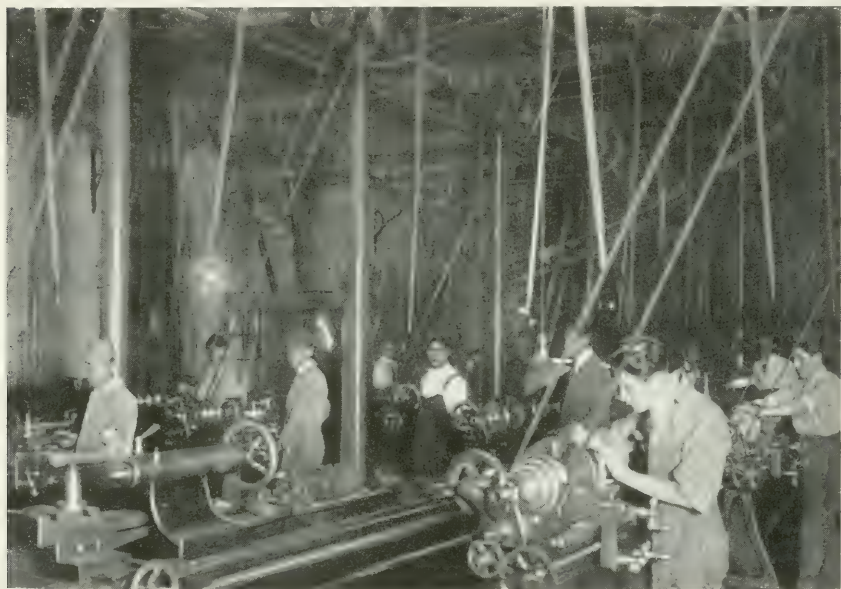


CLASS IN BOOKBINDING, INDUSTRIAL SCHOOL, QUERETARO.

joy and enthusiasm and we have the utmost faith that it will bring forth abundant fruit. In January of this year 20 choral societies for workingmen were organized to study music in the evening, after the day's work was over. Eight hundred enrolled at the beginning, a number which has increased to a chorus of 3,000 men. Moreover, a typical orchestra has been formed, including 150 instruments which are absolutely Mexican. Both the orchestra and the choruses use nothing but Mexican music, and the effect produced is truly artistic. This alone is proof sufficient that Mexico has an "alma propia," a soul of her own, which can express itself spiritually. One of our best music teachers, Don Joaquin Berestein, whose whole heart is in this work, conducts the chorus. Out-door festivals have been held in the beautiful amphitheater in Chapultepec Park, where

this chorus of 3,000 voices sings our national anthems. This capacity for community singing, unsuspected hitherto, has been a revelation. Who knows why we Mexicans have been so weak as to try always to copy the foreigner? Either we had no real desire to express our national individuality, or we did not believe that we possessed such individuality. However this may be, it is a fact that the Mexican workingman is now voicing the national spirit, and that the other classes are listening to him. The laborer, at the present moment, is the creator of beauty, beauty that is his own and Mexico's.

Mention must also be made of the Sunday programs which have been arranged for the working classes, and which are held in the



MACHINE SHOP, SCHOOL FOR MECHANICAL ENGINEERS AND ELECTRICIANS.

motion-picture theaters. This movement has for its patron no less a person than the Secretary of Public Instruction, although the idea originated in certain groups of workingmen and the members of social clubs. About 700 laborers in the capital spend Sunday morning listening to good music or talks on educational subjects and in joining with the chorus, which sings for them most willingly. Anyone who has attended one of these "fiestas" must be thoroughly convinced of the hunger of our people for education and the possibilities for moral and cultural development of the nation. Such a treasure is more to be desired than Mexico's gold mines or petroleum wells, a treasure of vastly more value than all the other coveted natural riches in which Mexico abounds.

THE MEXICAN FLAG IN INDEPENDENCE HALL ..

INDEPENDENCE HALL, that imperishable inner shrine of American Liberty, has been the scene of innumerable stirring events since its erection in 1732—one at least of transcendental significance and importance to mankind as a whole. But as a spontaneous expression of the ever-closer *rapprochement* in plain human sympathy and understanding between the women of the various nations of this hemisphere, the impressive ceremony which took place within that historic building on Chestnut Street, Philadelphia, early on September 16 last, has never been surpassed.

The occasion was the delivery by Mrs. John Roberts, president of the New Century Club of Philadelphia, of the splendid Mexican flag presented by Madame Obregón, the wife of the President of Mexico, to the women of the United States as an expression of the good will and esteem of their Mexican sisters on the occasion of the Pan American Conference of Women, in connection with the Convention of the National League of Women Voters held in Baltimore last spring.

This flag, which was prepared under the immediate supervision of Madame Obregón, and which was presented primarily in recognition of the work of the Pan American Round Table of San Antonio, Texas, under the able direction of Mrs. J. C. Griswold, is not only a magnificent example of the Mexican national colors, but a very fine example of that needlework art which is one of Spain's most valuable legacies to her deft-fingered daughters in the New World.

In the absence of the mayor, the simple but impressive ceremony was presided over by Maj. Barclay H. Warburton, Director of the Department of Public Welfare of the city of Philadelphia, and its significance was greatly enhanced by the fact that it took place on the red-letter day when Mexico was celebrating the one hundred and first anniversary of her independence.

Just before the actual presentation was made, the following letter from Mayor T. Hampton Moore was read:

LADIES AND GENTLEMEN: Mexico's Independence Day, Saturday, September 16, happens to fall upon a day when, by reason of a long-standing engagement, I am obliged to be in Portland, Me. Were it otherwise, I would be present as the Mayor of Philadelphia to participate in these exercises as an evidence of the good will of the city toward the Mexican Republic. As it is, I have asked Major Barclay H. Warburton, Director of the Department of Public Welfare, to act for me as the city's representative.

This beautiful flag, which has been presented by Señora Obregon, the distinguished wife of the President of Mexico, to the women of the United States, is now to be placed in Independence Hall, in the custody of the city of Philadelphia.

On behalf of the city and in the name of the mayor, Major Warburton will accept this beautiful emblem, not only as an evidence of the growth, stability and patriotism of a neighboring Republic, but as an encouragement from the home of American independence to those who have struggled and fought for independence in their own land. We have no other wish than that Mexico shall be free and independent, and that its Government shall be secure and enduring.

I have therefore asked Major Warburton to accept the beautiful symbol of Mexico's independence, which comes to us through the courtesy of the first lady of that land, with instructions that it be displayed in Independence Hall throughout that day and that steps be immediately taken to preserve it thereafter as a valued trophy, evidencing the good feeling that exists between two great peoples.

Dr. L. S. Rowe, the director general of the Pan American Union, who had hoped to be present and to express in person his warm interest and pleasure in this new expression of friendly appreciation and esteem on the part of the most exalted representative of the women of Mexico, was represented by a most cordial letter which in part, reads as follows:

The presentation of a flag by the wife of the President of Mexico to the women of the United States is an outward symbol of that growing spirit of mutual understanding and good will which means so much to the future relations between the two countries. The women of this country are beginning to know the women of Mexico, and out of that mutual knowledge there is growing a better understanding of the purposes and ideals of the two peoples. I know of no greater service which the women of this country can perform than to devote themselves to the strengthening of these ties. They will thus be doing a service to their own country as well as fostering that spirit of Pan Americanism, of intentional good will and helpfulness, upon which the peace and progress of the American continent depend.

The actual presentation of this trophy of peace and friendship was made, as has already been stated, by Mrs. Roberts, president of the New Century Club, in the following words:

MR. DIRECTOR, LADIES, AND GENTLEMEN: This magnificent Mexican flag, the ensign of a sister Republic, was made in Mexico under the personal supervision of Señora Obregón, wife of President Obregón, President of Mexico. It was brought to Philadelphia last spring by a group of Mexican ladies: Miss Elena Torres, Miss Eulalia Guzmán, Miss Luz Vera, and Mrs. de Ruysman, accompanied by a committee of American ladies, members of the Pan American Round Table of San Antonio, Texas. The flag was presented to the women of Philadelphia as a token of good will from the ladies of Mexico, and the New Century Club, assisted by committees from our leading woman's clubs, had the honor of accepting it. An American flag, generously donated by a citizen, was presented in exchange by Mrs. Rudolph Blankenburg.

This flag is so very beautiful that I hope that you can all see it. It is as you see a banner 9 feet long, of red, white, and green satin. The emblem in the center is the coat-of-arms of Mexico. The coat-of-arms is embroidered by hand and, if the flag were reversed, you would see that the other side is as beautiful as this one, for the flag is double and the embroidery is repeated on the other side in every detail. Many of you know the story of this coat-of-arms. The legend is that when the Aztecs were seeking a place to build their city they were told to build it where a

cactus was found growing on a rock and on it an eagle devouring a serpent. The prophecy was fulfilled, the eagle devouring the serpent was found, and there they built their city. Here on the flag you see the rock and the cactus, the eagle and the serpent. But a flag, however beautiful, is more than silk or satin. A flag is the heart of a nation. And as we in our schools teach our children to honor Old Glory, the red, white, and blue, so the Mexicans in their schools teach their children to honor the Mexican flag, the red, white, and green, and they tell the children that green is the color of hope and that white stands for purity and innocent ideals, and that red is the flame of love.

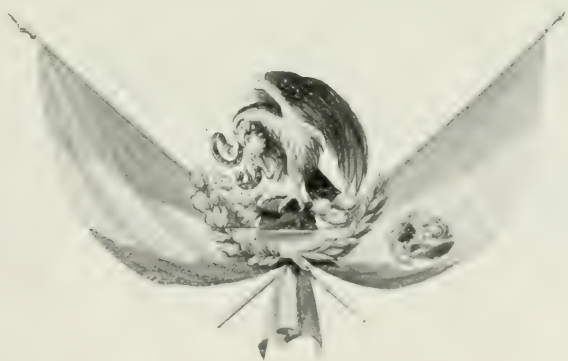
It seems fitting that this flag, made by the friendly hands of women, should be received by the hands of women, and we women have accepted the trust and cherished it; but now, on this day of Mexican independence, we transfer the custody of this flag to the officials of Philadelphia for preservation with the city trophies.

I have the great honor, Mr. Director, to place in your hands this flag of the Mexican Republic as an earnest of a better knowledge and understanding between two proud and powerful nations.

Mexico was directly represented, among others, by Sr. Gregorio de la Concha, a student in Temple University, who made a most graceful little speech from which we extract the following:

Deeply conscious of the great honor Mrs. Roberts has done me in inviting me to be present to-day and in permitting me to add my tribute of homage to this significant and gracious ceremony, I can but attempt to express simply and briefly the profound impression in the Mexican heart and soul when it becomes known that the sacred insignia of that country is to be guarded as a precious relic in the cradle of American independence, in this ancient and historic city of Philadelphia.

The flag which on this glorious anniversary the day when, shaking herself free from the fetters of the yoke, Mexico achieved the freedom which is the right of every nation—is delivered into the safe-keeping of this city bears not only the insignia of the Mexican people, but is, in a sense, part of the very soul of Mexican womanhood. With infinite love and patriotism she has with her own hands fashioned this great and noble device and dedicated it to the women of this nation; and it is my ardent desire that this act of homage on the part of this group of representative women of the United States may convey to the Mexican people a new consciousness of the sisterhood of nations—of two sister republics, as it exists in the hearts of their respective women.





THE LATE ADMIRAL JORGE MONTT OF THE CHILEAN NAVY,
FORMERLY PRESIDENT OF CHILE.
(1845-1922.)

PASSING OF A GREAT FIGURE IN CHILEAN HISTORY

By L. S. ROWE,

Director General Pan American Union.

BY the death of ex-President Admiral Jorge Montt, Chile loses an eminent citizen who during his long and active career rendered most valuable services to his country, as a naval officer, a statesman, and as an earnest worker for the improvement of the condition of the poor.

Born in 1845, he entered the navy in 1858, and saw his first service in 1863 in the engagements of Papudo and Abdao against Spain in the southern Pacific. He also served with distinction throughout the first campaign of the war against Peru, being present at the blockade of several ports and at the bombardment of Callao, Ancon, and Mollendo. At the outbreak of the civil war in Chile in 1891 he had already won the rank of captain, but was appointed commander of the naval division of the Constitutional Forces, and it was due to his ability that it was possible to bring to speedy conclusion the war against the army of President Balmaceda. When in the same year Commander Montt was elected President of Chile by an unprecedented vote which almost amounted to unanimity, he adopted a conciliatory policy, inaugurating many reforms that made his administration respected and popular.

At the expiration of his five-year term, in 1897, he was commissioned by the Chilean Government to make a tour of the United States and Europe in order to study the best methods of reorganizing the Chilean Navy. On his return he was made chief of the naval staff, whose work has done so much for the naval policy of his country. In 1891 he was made a rear admiral, and retired from active service in 1913.





SEÑOR DR. RICARDO J. ALFARO.

Envoy Extraordinary and Minister Plenipotentiary of Panama to the United States.

DR. RICARDO J. ALFARO:

THE NEWLY APPOINTED MINISTER FROM PANAMA.

THE Government of Panama has recently designated Dr. Ricardo J. Alfaro as its envoy extraordinary and minister plenipotentiary in the United States. Doctor Alfaro is not a stranger in Washington, having been legal adviser 10 years ago to the Legation of Panama and, less than two years ago, special envoy of his country at the inauguration of President Harding. Doctor Alfaro presented his credentials to the President of the United States on August 28, 1922.

In the course of his brilliant public career, Doctor Alfaro has rendered valuable service to his country as a member of the committee on the revision of judicial organization and procedure; judge of the mixed claims commission, created by the Panama Canal Treaty; and secretary of government and justice, the ranking position in the Cabinet. During part of the four years spent in the last-named post, Doctor Alfaro also held the portfolio of Foreign Affairs, a department in which he had earlier been first a chief of bureau and later undersecretary.

Although busy with his law practice during the years 1910 to 1918, Doctor Alfaro nevertheless showed his devotion to the cause of education by occupying for seven years the chair of history in the Instituto Nacional. In 1917 he became professor of civil law in the National Law School, of which he was one of the founders.

Doctor Alfaro's interest in history and law is further manifested by his membership in the Spanish and the Panama Academies of History; the Academy of American History of Buenos Aires; the Academy of Political Sciences of New York, and the American Society of International Law.

Among the valuable publications of Doctor Alfaro may be mentioned the *Life of General Tomás Herrán*; *Boundaries between Panama and Costa Rica*; *Panamanian Judicial Code*; *Divorce*; *Trusteeship*; *Bolívar*, and other historical monographs.

The BULLETIN OF THE PAN AMERICAN UNION cordially greets his Excellency, Doctor Alfaro, and heartily welcomes him to Washington.





SEÑOR DR. PEDRO MANUEL ARCAYA.

Envoy Extraordinary and Minister Plenipotentiary of Venezuela to the United States.

DR. PEDRO MANUEL ARCAYA

THE NEWLY APPOINTED MINISTER FROM VENEZUELA.

ON September 22, 1922, President Harding received at the White House his Excellency, Doctor Pedro Manuel Arcaya, who presented his credentials as envoy extraordinary and minister plenipotentiary of Venezuela in the United States. Doctor Arcaya is an eminent Venezuelan of distinguished ability, whose achievements as jurist, historian, and statesman have given him a place in the foremost ranks of the intellectual aristocracy of his country.

Doctor Arcaya, the son of Señor Camilo Arcaya and Señora Ignacia Madriz de Arcaya, was born on January 8, 1874, in Coro, the capital of the State of Falcón. As soon as he had received his degree from the University of Caracas, he returned to Coro, where he practiced law until 1909, when he moved to Caracas, where he became a member of the committee on revision of the national laws.

In the same year Doctor Arcaya also became a justice of the Supreme Court of Venezuela (Corte Federal y de Casación), serving until 1912. He has held successively the important posts of Federal Attorney General, Minister of Foreign Affairs, legal adviser to the Ministries of Promotion and Public Works and, since 1918 up to the present, senator in the National Congress, having been three times honored by being chosen president of the Senate and of Congress.

This brief outline of Doctor Arcaya's distinguished career would, however, be incomplete without mention of his writings. Among his published works may be named *A Defense of Territorial Property; Study of Personages and Events in Venezuelan History; Essays in Venezuelan Sociology; The History of the State of Falcón (Vol. I, to 1600);* and various contributions to numerous periodicals.

In recognition of Doctor Arcaya's literary, historical, and legal contributions, he has been made a member of the following learned societies: Venezuelan Academy of Spanish; National Academy of History; Venezuelan Academy of Political Science, of which he has been president since its organization in 1917; the Royal Spanish Academy, and the Spanish Academies of History and of Law and Jurisprudence; the Colombian Academies of History and Jurisprudence; and of other similar Italian, Portuguese, and Greek societies.

The BULLETIN OF THE PAN AMERICAN UNION takes pleasure in extending a most cordial welcome to Doctor Arcaya as he enters upon the duties of his new post in Washington.

CERTAIN TREES OF BRAZIL: THEIR ECONOMIC AND INDUSTRIAL USES

BY C. R. CAMERON,

United States Consul, Pernambuco, Brazil.

I. THE BABASSÚ NUT.

TREE AND FRUIT.

THE babassú nut-palm, or *Cocos orbignya*, grown in immense numbers in the forests of Piauhý and Ceará, one forest extending along the River Parnahyba in Piauhý, being estimated to contain 400,000,000 trees. It is also found to a lesser but still important extent in Pernambuco and Alagoas, and, in fact, in all northeastern Brazil. The babassú palm attains a height of 10 or 12 meters and will produce from 10 to 15 kilos of cleaned nut meat per annum. The nuts are borne in clusters, sometimes 2 meters long, and so heavy that frequently two men are required to carry one cluster. The larger clusters will contain from 500 to 1,000 fruits. The leaves, like those of many other palms, serve for roofing. The bud which marks the upper extremity of the trunk of the palm serves as animal forage and the fiber is utilized for mats, brushes, and cordage.

The nut is inclosed in a shell of such extraordinary hardness that special machinery is required for breaking the nut. Several such machines have recently been patented. The nut, including the shell, is a great heat producer and during the period of prohibitive coal prices during the war, babassú nuts were sometimes used as bunkers on steamships, being burned precisely as coal. Experiments carried out by the Oversea Co. indicate, according to Mr. Cardoso's statement, that 1,700 kilos of babassú nuts burned in the shell will produce as many calories as 1,000 kilos of steam coal—that is, the heat-producing quality of the babassú nuts compared with that of coal is as 10 to 17.

ANALYSIS OF OIL.

A highly valuable oil is extracted from the nut and, indeed, the oil-producing feature of the nut is undoubtedly that which will insure

its future as a commercial product. The analysis of this oil, as published in the statement of Graccho Cardoso, without, however, stating who made the analysis, is as follows:

(a) Analysis for fat:

Specific weight at 25° C.....	0.9183
Fusion point, degrees C.....	27.7
Index of refraction, 40° C.....	1.4506
Index of refraction in degrees Wellný, at 40° C.....	37.5
Degrees of acidity, CC n/l alkali 4 per 100 grams.....	5.0
Index of vaporization.....	245.2
Index Reichert-Meisel.....	6.0
Index Polenske.....	10.4
Iodine index (von Huebl).....	16.1

(b) Analysis for free fatty acids insoluble in water:

Fusion point, degrees C.....	26.0
Index of refraction at 40° C.....	1.4382
Index of refraction in degrees Wellný at 40° C.....	20.6
Index of neutralization.....	257.5
Average molecular weight.....	217.9
Iodine index (von Huebl).....	17.0

Experiments seem to show that the nuts keep well in warehouses without deteriorating or increasing acidity. A sample of the expressed oil was kept by Mr. Cardoso four months in an open cup at a temperature of from 25° to 31° C. without any noticeable change in the odor or taste of the oil. During this period the degree of acidity had increased only 1 per cent, being then 6 per cent, whereas the fresh oil showed an acidity of 5 per cent.

The cake left after the expression of the oil contains 32 per cent of proteins and is consequently valuable as cattle food. The local price of the shelled babassú nut during recent years has varied from 140 to 900 reis (\$0.028 to \$0.18 at 5 milreis for \$1) per kilo; in November the quoted price was 580 reis (\$0.116) per kilo.

PROPOSED LAW.

Mr. Cardoso makes a plea for the protection of the development of the palm-oil industry in Brazil and proposes a law providing:

1. That the Government establish experimental stations to investigate the cultivation and commercial exploitation of oil-producing palms, these stations to maintain plantations of the various kinds of palm trees, for the purpose of studying the conditions of growth, suitable fertilizer, methods of irrigation, means of combating diseases and pests, the improvement and crossing of species, oil contents of the different fruits under various conditions of cultivation, and methods of refining and utilizing.

2. That the exportation of whole babassú nuts or young plants be prohibited.

3. That the opening of clearings in forests of oil-producing palms or the destruction of the palm simply for the extraction of the bud be prohibited.

4. That the Government will open the necessary credits up to a total of 1,000 contos (\$200,000 at 5 milreis for \$1) for the execution of this law.

The purpose of prohibiting the exportation of whole babassú nuts and young plants would be, first, to encourage the extractive industry in Brazil, and, second, to prevent the establishment of babassú plantations abroad. The Brazilian never forgets the ruination of the Amazon rubber industry by the cultivation of plantation rubber.

II. CASHEW (*CAJU*) FRUIT AND NUTS.¹

THE TREE.

The cashew tree is indigenous to Brazil and has been introduced elsewhere from this country. The Brazilian name, *caju*, was therefore its original appellation, but it has become anglicized in the Orient and India as cashew, and the latter is the term by which both fruit and nuts are known in the markets of the world. The *Diccionario de Botanica Brasileira* gives the scientific name as *Anacardium occidentale*, of the family *Anacardiaceas*. Doctor Paschoal do Moraes states that there are three species, the *Anacardium occidentale*, *Anacardium giganteum*, and *Anacardium humilis*, the last named being the *caju* of the forests. The differences are minor, relating to color, shape, acidity, and succulence of the fruit. The most common variety is undoubtedly the *A. occidentale*.

The cashew grows everywhere in Brazil, both on the high tablelands and the coastal plain, and does well in swamps and in poor clayey soil where other vegetation does not luxuriate. Its habitat in Brazil extends throughout the Tropics and even into temperate Brazil (south of Rio de Janeiro and São Paulo), but the cashew attains its best development in the Tropics. The tree is spreading, the height rarely exceeding 40 feet, while the spread is frequently over 60 feet. In Pernambuco, the cashew thrives on the littoral. To mention a single instance, there occurs near Recife a forest of these trees growing wild. This area is about $7\frac{1}{2}$ miles long and $1\frac{1}{4}$ miles broad, containing on the average 50 full-grown trees to the acre, or 300,000 trees on the 6,000 acres of the tract.

Cashew timber is valuable for furniture making, and the bark of the tree exudes a clear amber-colored gum which, for many phar-

¹ Mr. Fred A. G. Pape, F. R. G. S., who has made a specialty of vegetable oils and tropical fruits, is now in Pernambuco and has been kind enough to furnish notes on the *caju* nut, from which much of the information contained in this article has been taken.

maceutical purposes, takes the place of gum arabic. It also makes excellent mucilage and is employed for varnishes. It is said to be a valuable medicine for phthisis and to be hemostatic.

CASHEW FRUIT.

The cashew fruit is the shape and size of a medium Bartlett pear, though usually shorter and more truncated. According to the *Diccionario de Botanica Brasileira*, the fruit is the developed peduncle of the flower. In color it varies from the bright yellow of the Bartlett pear to salmon and pink. The interior is whitish, soft and full of



ONE OF A FOREST OF CASHEW TREES.

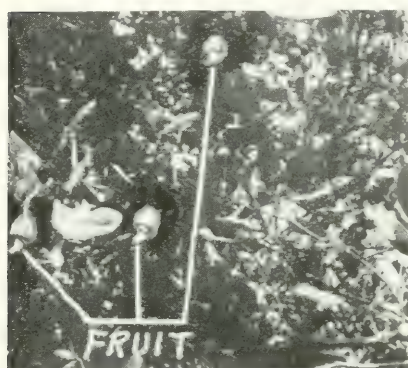
Cashew is an anglicized form of *caju*, the name in Brazil where the tree is indigenous. It rarely grows more than 40 feet high, but frequently attains a spread of 60 feet. The scientific name is *anacardium occidentale*.

juice, the latter being somewhat astringent to the taste. The fruit, however, is made into a very refreshing drink. It is also extensively canned in sirup as a preserve and dried in sugar as crystalized fruit. There is already a good market for Pernambuco preserved caju in South Brazil and Portugal. Samples of cashew preserve have recently been sent to New York in an endeavor to establish an American market therefor. Samples of the preserved cashew from Pernambuco may be obtained from H. E. Braisted & Co. (Inc.), New York City.

The cashew fruit has no seed inside, this being contained in the nut protruding from the tip of the fruit opposite the stem. The fruit is delicate, easily bruised, and vendors frequently carry it through the streets in bunches suspended by threads passed around the protruding nut. Indeed, the fruit is so juicy and the skin so delicate that the juice frequently drips from the ripe fruits on the tree. A full-grown healthy tree may bear 3,000 or even 5,000 fruits which ripen in Pernambuco during the months of November, December, and January. Some trees in especially favorable situations produce two crops per annum.

THE NUT.

This projects from the portion which in an apple or pear would be the limb of the calyx. As a matter of fact, the nut develops first



THE FRUIT OF THE CASHEW.

Ripe fruit and flower are frequently seen together on the same tree. One adult tree may produce 3,000 or even 5,000 fruits per annum. At the right: Fruit showing the nut protruding from the extremity opposite the stem. The nut develops first from the flower and the fruit grows later from the peduncle. The fruit is extensively preserved and is beginning to be exported.

from the flower, and the fruit grows later between the nut and the stem.

The nut is kidney shaped, doubled around like a boxing glove. It is about an inch long, the kernel being contained in a covering one-eighth of an inch thick, consisting of a soft oily outer portion and a thin hard interior shell. The nut is detached from the fruit and roasted, after which the scorched rind and shell are easily removed. The nut may also be dried in the sun for about a week, and then cracked open, but either drying or roasting is necessary to permit the removal of the kernel without contact with the oil of the green shell which will produce inflammation wherever it touches

the cutis. During the cashew season, one sometimes sees children with lips red and inflamed from biting open green nuts. The oil of the green, outer portion of the nut is so powerfully astringent that it is used for removing corns and warts. It is estimated that one full-grown cashew tree will produce 5 kilos of nut meats per annum.

The kernel when removed from the outer shell after roasting is still protected by a thin inner shell like that surrounding the kernel of the chestnut. The cleaned cashew kernel is then from $\frac{3}{4}$ to $\frac{7}{8}$ of an inch long and curved. It is white, of delicate flavor, and much used locally in candy, and in place of salted almonds, being prepared in



THE CASHEW FRUIT VENDOR.

During the season from November to January, quantities of this fruit are sold by street vendors. It is very delicate, bruises easily, and is carried in wide shallow baskets or in bunches, each fruit being suspended by a string fastened to the protruding nut.

the same way. At least in the European markets, the nut was used before the war by the confectionery trade. It is not known that the cashew nut has been introduced to the American trade.

MARKET.

The cashew nut does not figure in the detailed exports of Brazil. Some might be included in the 100 tons of "Other oil seeds" exported during 1920. The kernel contains about 28 per cent of oil but, so far as known, oil is not extracted therefrom, nor is it considered as an oil-producing nut. Before the war, the Madras Presidency of India alone is said to have exported to Europe 50,000 tons of these nuts

annually, the shipments going principally to London, Marseilles, and Hamburg. The price at that time is said to have ranged from £50 to £52 per ton. Additional shipments came from the Molukkas and the east and west coasts of Africa.

The haul from the African sources of supply to London is 5,000 miles, that from the Molukkas being 10,000 miles. Distances from Recife are as follows:

	Nautical miles.
Recife to New York.....	3, 698
Recife to London.....	4, 136
Recife to Hamburg.....	4, 443

Furthermore, every steamer plying between Europe or America and Brazil or the River Plate must pass close to Recife. It should also be borne in mind that merchandise passing through the Suez Canal pays 14 shillings per ton tolls, which, of course, does not enter into the expense of shipments from Brazil to Europe or to the United States.

Mr. Pape is of the opinion that northeastern Brazil presents more promising conditions for the production of cashew nuts than exist anywhere else in the world, basing this view upon his personal experience and investigation in the East Indies and Africa. Forests of the tree grow wild in this consular district; one such forest, as already stated, containing about 300,000 trees and being situated not far distant from the city of Recife. If the crop of this one area should be harvested at the present time, even at the rate of $2\frac{1}{2}$ kilos per tree, or half the estimated production, about 750 tons of cashew nut would be produced, worth £37,500 at pre-war prices.

At the present time the crop goes largely to waste. An Italian firm, however, is now sending to Turin a sample shipment of a few sacks of green nuts. This firm pays at the rate of 3 kilos for 1 milreis, or about 2 cents per pound at the current rate of exchange of 8 milreis for \$1. As the green nuts will give about one-sixth of their weight in meats, the latter at this purchase price would cost about 15 cents per pound, including the labor of shelling, but there is really no established market for cashew nuts in Recife and consequently no reliable price quotations. There would be a very considerable saving in freight by removing the shells before shipment, but experience only will demonstrate whether shelled nuts can be shipped without deterioration.

No current quotations of this product in the European or American markets are available. The cashew nuts would probably compete with almonds. According to the *New York Journal of Commerce*, California shelled almond meats were quoted on November 14, 1921, at from 34 cents to 54 cents per pound.

COMMERCE OF THE UNITED STATES OF AMERICA WITH LATIN AMERICA.

Twelve months ending June 30, 1922.

[Compiled from Monthly Summary, June, 1922, Bureau of Foreign and Domestic Commerce, Department of Commerce.]

Countries.	Imports, 1922.	Exports, 1922.	Total, 1922
Mexico.....	\$122, 956, 524	\$137, 750, 077	\$260, 706, 601
Guatemala.....	8, 934, 231	5, 646, 907	14, 581, 138
Salvador.....	1, 987, 102	4, 614, 934	6, 602, 036
Honduras.....	5, 181, 943	10, 526, 633	15, 708, 576
Nicaragua.....	3, 504, 591	3, 385, 030	6, 889, 621
Costa Rica.....	5, 641, 596	3, 736, 951	9, 378, 547
Panama.....	3, 535, 566	14, 662, 814	18, 198, 380
Cuba.....	210, 585, 780	114, 799, 891	325, 385, 671
Dominican Republic.....	7, 479, 529	10, 652, 700	18, 132, 229
Haiti.....	1, 147, 090	8, 562, 823	9, 709, 913
North American Republics....	370, 953, 952	314, 338, 760	685, 292, 712
Argentina.....	60, 767, 964	80, 495, 060	141, 263, 024
Bolivia.....	734, 731	2, 250, 486	2, 985, 217
Brazil.....	100, 435, 733	38, 330, 449	138, 766, 182
Chile.....	38, 912, 591	16, 716, 462	55, 629, 053
Colombia.....	41, 049, 460	15, 988, 805	57, 038, 265
Ecuador.....	5, 837, 682	3, 565, 326	9, 403, 008
Paraguay.....	1, 161, 732	262, 531	1, 424, 263
Peru.....	14, 442, 775	12, 496, 799	26, 939, 574
Uruguay.....	11, 588, 604	9, 702, 557	21, 291, 161
Venezuela.....	12, 409, 533	7, 585, 267	19, 994, 800
South American Republics....	287, 340, 805	187, 393, 742	474, 734, 547
Total Latin America.....	658, 294, 757	501, 732, 502	1, 160, 027, 259





Courtesy of *Para Todos*, Rio de Janeiro.

BUILDINGS AT THE CENTENNIAL EXPOSITION, RIO DE JANEIRO, BRAZIL.

These views show several of the Exposition buildings nearing completion, and prior to the opening of the Exposition on September 7, 1922. Upper: Palace of Small Industries. Lower: Interior court of the Palace of Industries.



Courtesy of Para Todos, Rio de Janeiro.

EXPOSITION BUILDINGS, RIO DE JANEIRO.

Upper: Pavilion of Game and Fisheries, with water pergola extending into the bay. Lower: The main restaurant.

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

INCREASED RAILROAD RATES.—The United States commercial attaché in Buenos Aires reports that, according to three presidential decrees of June 27, increases in passenger and freight rates were authorized on the railroads operating in Argentina.

The first decree, which, like the others, is based on the finding of a technical commission, refers generally to all of the railroads. The increased rates will not apply to suburban and commutation tickets, nor are freight rates on cattle, flour, meat, cream, milk, fodder, construction materials, potatoes, and forestal products to be raised. The new rates are to be effective after 30 days' notice by the railroads to the public. The increase in general freight rates varies from 10 to 25 per cent on the different railroads, in some cases according to the class of freight.

The second and third decrees concern themselves somewhat in detail with rates for the Northeastern Argentine and the Entre Ríos Railways, respectively.

STOCK SHOW.—The Rural Society of Rosario opened its twenty-second annual stock show on August 13 with a fine collection of pedigreed animals, including cattle, sheep, hogs, and poultry. Farm machinery was also shown. Prizes were awarded and encouragement given to stockraisers. There were races and athletic events in connection with the exposition.

HYDROPLANES ON THE BERMEJO.—The Ministry of Public Works has lately acquired five hydroplanes to navigate the Bermejo River and improve communication with remote regions of the Republic. Four hydroplanes from the Ansaldo Co., Rome, at 18,000 pesos each, and one French Galvan machine have been purchased. The Ansaldo ships are equipped with Nieuport-Macchi 300-horsepower motors, can develop an average speed of 60 kilometers per hour, and are equipped with cabins for 8 passengers, in addition to the pilot and mechanician. They can also carry a ton of freight.

MERIDIANO QUINTO RAILROAD.—The President of the Republic has approved the plan for general extension of the Meridiano Quinto Railroad, with authority to begin work on the branch from La Plata to Avellaneda; from kilometer 460 to Meridiano Quinto; from the main line to Azul, Tandí, Olavarría, and Sierra Chica; from Azul to Juárez

and from Hirschs to Roberts; from 9 de Julio to Lincoln and Vedia, and also on short branches from the main line to the towns of Monte, Saladillo, 25 de Mayo, 9 de Julio, Carlos Casares, Pehuajó, Trenque, Lauquen, and Rivadavia.

BRAZIL.

BRAZILIAN RAILWAY AND PORT PROPERTIES. —According to information just made public by the Minister of Transportation, the value of railway and port properties owned by the Federal Government of Brazil is as follows:

	Milreis.
Central do Brazil Railway.....	623, 692, 000
Noroste do Brazil Railway.....	90, 823, 778
Oeste de Minas Railway.....	193, 167, 832
Therezopolis Railway.....	10, 158, 876
Madeira a Mamore Railway.....	59, 157, 768
S. Luiz a Therezina Railway.....	39, 056, 227
Basilio a Jaguarao Railway.....	4, 041, 808
Rio d'Ouro Railway.....	6, 101, 597
Sao Pedro a S. Luiz Railway.....	9, 287, 706
Sao Borja a Santiago branch.....	2, 981, 866
Sao Sebastiao a Sant' Anna Railway.....	4, 587, 334
Alegrete a Quarahy Railway.....	2, 058, 338
Tubarao a Ararangua Railway.....	4, 603, 616
Port of Rio de Janeiro.....	232, 683, 321
Properties of the port of Rio (material).....	6, 486, 543
Fiscalization of the port.....	3, 091, 531
Total value.....	1, 291, 980, 142

(*Commerce Reports, September 11, 1922.*)

The Government has been authorized to spend over 52,550,000 milreis for extensions of State-owned railroads and for the acquisition of material. (*Commerce Reports, September 4, 1922.*)

EXPORTATION OF FRUIT.—A new development in the export trade of Santos, Brazil, was the exportation to New York, during the month of May, 1922, of several hundred cases of Brazilian oranges, tangerines, pineapples, and alligator pears, all of which were grown in the State of São Paulo, Santos being the seaport of that district. (*Commerce Reports, September 4, 1922.*)

ARGENTINE-BRAZILIAN TRADE.—Due to Brazilian initiative there are two trade commissions, one in Buenos Aires and the other in Rio de Janeiro, working on trade increase between the two countries. When their investigations are completed these two committees are to meet to discuss their conclusions, and then will report to their Governments.

In 1918, as stated by the *Prensa* of Buenos Aires in its account of the commissions, Argentine imports from Brazil amounted to 16,-355,360 gold pesos, increasing in 1919 to 17,331,985 gold pesos, while

Argentine exports to Brazil in 1918 were worth 33,346,557 gold pesos and in 1919, 37,150,237 gold pesos. In 1920 Argentina imported almost all of her hulled rice from Brazil, as well as coffee. There are many flourishing towns in the Brazilian State of Rio Grande del Sur which are nearer to Buenos Aires than to Rio de Janeiro, but so far lack of communication and transportation has somewhat impeded exchange.

GOOD ROADS MOVEMENT SHOWS RESULTS. There is a good-roads movement on in the State of São Paulo, headed by the local Permanent Good Roads Society (*Associação Permanente de Estradas de Rodagem*). The official publication of the society *A Estrada de Rodagem* (*The Highway*) recently sent out a questionnaire to all municipalities in the State asking for up-to-date information on all highways suitable for automobile or truck traffic. During the past year approximately 1,000 kilometers of highway suitable for automobile traffic have been constructed in the State, most of it radiating from the city of São Paulo. Included in this is the very modern automobile highway of about 450 kilometers from São Paulo to Ribeirão Preto, in the heart of the coffee district, being an extension of the São Paulo-Campinas road which was opened to automobile traffic about a year ago. The road is suitable for both truck and passenger-car traffic and affords much quicker service than the local railway. In addition to completed roadways, approximately 5,000 kilometers of highway have been projected. It is the definite purpose of the State administration not to stop road construction until the whole of the State has been connected with its own important centers and with those of surrounding States. . . .

Likewise, in the State of Rio Grande do Sul, road building has been going on steadily during the past year or so, and added impetus was given by the appropriation in March, 1922, of nearly 4,000 contos of reis (approximately \$540,000) for highway construction.

The State of Santa Catharina also has appropriated over 3,500 contos of reis (approximately \$472,000) for the construction of highways.

Although there is not so much activity in road construction throughout Brazil, especially in the more remote interior regions, all sections of the country seem to realize the great importance of additional transportation facilities and are working toward the establishment of better roads for their respective districts. In northeastern Brazil the large reclamation projects under way have necessitated the construction and repair of highways for the hauling of material and equipment over long distances to the dams now being constructed for irrigation purposes. As a result the use of trucks in that section is increasingly common. (*Commerce Reports, August 21, 1922.*)

CHILE.

EXPORTS AND IMPORTS.—The principal exports and imports for the first five months of 1922 were as follows:

Imports:	Gold pesos of 18d.
Olive oil.....	1, 037, 579
Iron wire.....	564, 830
Cattle.....	140, 073
Rice.....	1, 647, 071
Automobiles.....	91, 657
Sugar.....	6, 717, 127
Coffee.....	1, 114, 698
Coke.....	1, 640, 053
Coal.....	165, 237
Coal briquettes.....	75, 000
Carbide of calcium.....	58, 159
Roman cement.....	599, 921
Dynamite.....	1, 016, 900
Wheat flour.....	700
Iron lingots.....	380, 462
Corrugated iron.....	52, 903
Sheet iron, plain.....	226, 657
Iron in bars or sheets.....	1, 106, 579
Tin-plate, ordinary.....	415, 605
Pine wood.....	115, 807
Gold and silver coins.....	540, 000
Osnaburg bagging.....	974, 066
Printing paper.....	651, 017
Paraffin paste.....	675, 226
Petroleum.....	1, 376, 655
Paraffin and petroleum for lighting purposes.....	672, 106
Empty sacks of all kinds.....	784, 049
Tobacco, cigarettes, and cigars.....	93, 320
Tea.....	470, 255
Wheat.....	4, 294
Wines and other liquors.....	93, 978
Mate.....	1, 151, 190
Exports:	
Carob beans.....	455, 995
Oats.....	1, 055, 945
Sulphur.....	2, 380, 070
Borate of lime.....	11, 164, 306
Frozen beef.....	585
Hard coal.....	109, 964
Barley.....	1, 354, 431
Malted barley.....	302, 163
Copper bars.....	20, 977, 818
Preserved beef.....	438
Sheepskins.....	10, 788
Hides.....	226, 175
Black beans.....	689, 726
Garbanzos.....	214, 096
Wheat flour.....	1, 338, 618

Exports—Continued.

Gold pesos of 1sd.

Sheep's wool.....	2,007,943
Lentils.....	1,252,039
Copper ore.....	2,398,576
Iron ore.....	30
Silver ore.....	362,829
Nuts.....	552,299
Silver bars.....	243,661
Nitrate.....	35,456,385
Wheat.....	345,558
Iodine.....	2,134,892

NITRATE.—According to the United States Commerce Reports, exports of nitrate during July amounted to 100,000 metric tons, while during the first seven months of the year the total shipped was 400,000 metric tons. The new prices went into effect July 1. The Mercurio de Santiago states that the "Pool," or association of nitrate purchasers, was dissolved on July 31, 1922, its existing stocks of nitrate being distributed pro rata among its members.

COLOMBIA.

BLOODED SIRES. A Government regulation has gone into effect requiring that certificates for the entrance into the country of blooded breeding stock must be issued by official veterinarians of the country of origin. The Colombian consul of the country of origin must visé the certificate in question, also verifying the official character of the veterinarian issuing the certificate for the stock. The sanitation authorities of the ports will give imported animals the tuberculin test for cattle, and a different test for horses. Animals with a positive reaction will be slaughtered without rights of indemnization. The same procedure will follow tests of animals to be made six months after arrival in the country.

AGRICULTURAL EXPOSITION. A National Agricultural, Industrial, and Commercial Exposition is to be held under the auspices of the Society of Agriculturists of Colombia in 1923 in Bogota, to be attended by all the local governments of Departments and cities, trade associations, and firms of importance.

RAILWAY CONGRESS.—The Colombian Society of Engineers has decided to call a railway congress to take up legislation concerning railroads and the question of a general plan of railways to form the central system to which future lines should conform. The date will be fixed in the near future.

BUTTON FACTORY.—A factory producing 20,000 buttons a day from vegetable ivory (*taqua*) nuts has recently been completed in Bucaramanga.

FOREIGN TRADE OF BARRANQUILLA. Imports through the port of Barranquilla for the first quarter of 1922 amounted to 17,444,000

kilograms, worth 5,647,261.68 gold pesos, the duties on which were 849,638.56 pesos. Exports through the same port for the same period were 20,086,000 kilograms, worth 7,487,709.76 pesos, the duties amounting to 3,422.10 pesos.

LOAN FOR ROAD.—See page 510.

COSTA RICA.

SANITARY BUTCHER SHOP. A butcher shop with nickel-plated meat hooks, white walls, a refrigerating room, and electric fans, has been installed in San José, where it is doing a good business. The owner of the shop is a Guatemalan.

NEW INDUSTRY.—Next to his cordage factory a Costa Rican agricultural expert has established a new factory for manufacturing peanut oil, which is attractively put up in tins and glass bottles. The rich nutritious value of this oil and its cheapness as well as the ease with which peanuts grow in Costa Rica are expected to make peanut oil manufacture a profitable business venture.

EXPORTATION OF COFFEE.—A regulation has been issued that third-class coffee may be exported only from July 1 to September 30 each year.

RADIO CORPORATION. —Authorization has been granted for the formation of the Compañía Radiográfica Internacional de Costa Rica, which will operate under the concession granted July 25, 1921, by Decree No. 47.

CUBA.

COMMERCIAL MISSION. —The Secretary of Agriculture, Commerce, and Labor recently informed the cabinet of the organization of a commercial mission to be sent by Cuba to Europe to advertise the country's resources and progress.

VACCINATION AGAINST CARBUNCLE.—The veterinary bureau of the Department of Agriculture in one week distributed 1,978 injections of vaccine against carbuncle to farmers and stock raisers for the immunization of their animals against this disease. The department distributes the vaccine free with recommendations that it be used annually to prevent epidemics.

DOMINICAN REPUBLIC.

ROAD.—Work on the new road from Baní to Ocoa is well advanced, the Banileja section being already completed.

ECUADOR.

EXPORTS.—July entries of cacao for five years at the port of Guayaquil are as follows: 1918, 65,620 sacks; 1919, 45,799 sacks; 1920, 30,779 sacks; 1921, 32,742 sacks; 1922, 48,449 sacks. Shipments

for July during five years were as follows: 1918, 39,113 sacks weighing 2,950,908 kilos; 1919, 23,164 sacks weighing 1,888,976 kilos; 1920, 44,531 sacks weighing 3,635,820 kilos; 1921, 26,750 sacks weighing 2,179,928 kilos, and 1922, 29,039 sacks weighing 2,346,515 kilos.

Coffee exports for the month of July amounted to 1,137 sacks weighing 105,906 kilos against 2,341 sacks weighing 209,349 kilos shipped in July of 1921. Hides exported in July numbered 11,194, weighing 76,350 kilos, consigned to New York. During the same month 1,460 sacks of rice weighing 135,376 kilos were also exported.

FIRST CONGRESS OF ECUADOREAN AGRICULTURISTS.—This congress took place in Quito in the early part of August under the auspices of the National Agriculture Society, the delegates discussing better methods of production.

NEW INDUSTRIES.—Riobamba is the seat of a new industry in long napped carpets and tapestries with hand decorations, now placed on exhibit in Guayaquil. The carpets are oriental in style, of a variety of designs and colors suitable for luxurious homes or buildings. The rugs won the grand prize at the Quito Exposition of the present year.

A firm in Quito is now manufacturing a fine quality of absorbent cotton and surgical gauze.

UNDEVELOPED RESOURCES.—The President in his message read before Congress on August 10, 1922, referring to the economic situation of Ecuador, called attention to some of the country's natural resources which have not yet been developed to the point of finding a market abroad. Such raw materials as fibers, woods, and oil-producing seeds, he said, were articles which through advertisement could easily find foreign markets. Fruits, too, were in great demand, but to develop this industry, it would be necessary to turn the small bay of Puná into a regular port for the fruit export business, and to reduce the high export tax.

GUATEMALA.

CROP CONDITIONS.—The Ministry of Agriculture sends free cotton seed to those farmers who desire to plant a crop. In view of the severe drought the Director General of Agriculture has been making inspection trips to various parts of the Republic to ascertain the state of the coffee and sugar crops. He found that the coffee was abundant on the trees. The diseases which were said to be destroying coffee trees and sugar cane seem to be well under control, scarcity of labor being the most serious drawback.

UNITED FRUIT CO. WIRELESS.—The United Fruit Co. and the Guatemalan Government have signed a contract whereby the Fruit Co. agrees to establish a wireless station at Puerto Barrios for which it will pay all the expenses of installation and import duties, and con-

struct the station on its own land. It also agrees to transmit all Government messages free and to give a 50 per cent reduction to the press reports on the basis of cable rates. It will teach wireless telegraphy to national operators and pay the salary of the Government censor. It also renounces the right to diplomatic means of adjusting difficulties with the Government, which it agrees to settle by national courts. The contract is not transferable to another person or corporation. The chief advantage of this contract to the Fruit Co. is that they will be enabled to know exactly when their ships will dock and therefore will be able to cut their bananas at the last moment, thus avoiding the spoiling of perishable fruit on the docks.

IMPROVEMENTS IN POST OFFICE.—Postal packages are now to be sent direct to Mexico providing they do not exceed 10 kilograms weight.

GUATEMALA FREE FROM FOOT-AND-MOUTH DISEASE.—The minister of Guatemala in the United States has reported the statement of the Guatemalan Bureau of Animal Industry and Veterinary Supervision that Guatemala is free from the hoof-and-mouth disease. An inspection trip lately made by the head of the aforementioned bureau failed to reveal any cases of this dreaded cattle plague.

HAITI.

RIVER DIKES.—The sum of \$2,000 has been appropriated for the repair and construction of dikes along the Artibonite River in the Commune of the Grande Saline.

HONDURAS.

SIX MONTHS' EXPORTS.—The total exports from the ports of Honduras during the first six months of the fiscal year 1921-22, amounted to 5,088,170.01 silver pesos, while the duty came to 162,855.76 silver pesos. The products exported were: Live stock, worth 33,150 pesos; foodstuffs, 4,640,066.61 pesos; raw materials, 30,544.10 pesos; manufactured goods, 40,803.41 pesos; gold, silver, and coin, 343,605.89 pesos. The two largest consumers of Honduran products were the United States, with 4,704,577.40 pesos, and Cuba, with 212,360 pesos; next, Panama with 90,978.65 pesos, and England, with 32,253 pesos.

WOMEN FACTORY OPERATIVES' CONTEST.—La Perfección, a ready-made clothing factory of Tegucigalpa, has instituted a monthly contest in speed and skill for its women operatives. The first contest was held on July 28 when first and second prizes were given for speed and a single prize for perfect work. Women not eligible for the contest on account of working on special machines will be given separate contests and rewards.

MEXICO.

LARGE PETROLEUM REFINERY. —A petroleum refining company with a patent on a new refining process has petitioned for permission to establish a large refinery at Hacienda de Aragón, a municipality of the State of Hidalgo. Under the new patent method it is claimed that any crude petroleum now producing 5 per cent gasoline can be made to produce 40 per cent.

FUEL CONSUMPTION REDUCING PATENT.—The National Railroads of Mexico have acquired for 600,000 pesos a Mexican patent apparatus for the reduction of fuel consumption in engines. The apparatus consists of a plate of special shape and material, to be set in the boiler of the locomotive where it produces, it is claimed, increased heat and better operation. The Mexican inventors have registered the patent in 59 countries.

OIL PRODUCTION.—During 1921 Mexico produced 26 per cent of the world's output of petroleum. From 1901 to 1921 the country produced 729,921,330 barrels, while in the first five months of 1922 it produced 85,533,644 barrels. There are 3,758 kilometers of pipe line now existing, of which 585 kilometers were constructed in 1921. The oil exports for 1921 amounted to 172,268,136 barrels, and those for the first five months of 1922 to 86,314,192 barrels. There are 19 refineries in operation with a total capacity of 386,439 barrels per day, and six new refineries are to be built. (*President's message, September 1, 1922.*)

BUREAU OF AGRICULTURAL COOPERATION.—With the idea of aiding small farmers, the President has instituted the Bureau of Agricultural Cooperation to organize agricultural cooperative societies, and a banking and credit institution to centralize all the cooperative societies. (*President's message.*)

HISPANIC-AMERICAN INSTITUTE. The *Institución Hispano-Americana de Intercambio Científico y Económico* has founded an association in Barcelona to strengthen the economic, scientific, and friendly relations between Spain and Spanish America. The first activities of the association in Mexico will be to organize an excursion of Spanish business men to tour Mexico. Next the institution will establish an exchange of professors, men of letters, and artists; promote exchange of scholarships between different universities and schools; organize the entire bibliography of Spain and America; establish an information service on Spanish and American markets, showing points of origin and points of sale of merchandise; organize a commercial arbitration system for the quick adjustment of mercantile claims and successive excursions to study markets so that Spanish business men may come into direct contact with the con-

ditions, corporations, and large firms of the Spanish-American country visited.

SEPARATION OF IXTLE PULP.—A wealthy landowner of the State of Nuevo León, whose holdings abound in *lechugarilla*, *guapilla*, *espadilla*, native palm and royal palm, has requested the Chemical Experiment Laboratory of the Department of Industry to send some of the chemical experts to his property to make extensive tests of the bacteriological method of ixtle pulp separation. If the process on a very large scale proves as successful as the laboratory tests made of the method, it is thought that the separation of fibers will be greatly simplified and reduced in cost.

ANIMAL INDUSTRY STATIONS.—The President has issued an order providing for the establishment of Animal Industry stations all over the Republic which shall have a semiofficial character and the aid of Government funds. The stations are to teach modern methods of stock raising and provide means for improving the breeds of native animals by blooded stock.

NICARAGUA.

BRIDGE AND ROAD COMMISSION.—A commission has been appointed to supervise tolls on the Poneloya Bridge. Foot passengers are to be exempt from tax, and the proceeds of tolls are to be used for the upkeep of the bridge and the road of approach, which is also being extended.

PANAMA.

LIGHTHOUSES.—Chief Luis Alfaro of the Panama Lighthouse Department gave a lecture before the Panama Rotary Club in which he recounted the history of lighthouses from earliest times to the present, illustrating his description of Panama's new beacons with a model of the automatic gaslight used in the canal and on the coasts of Panama. The newest models are provided with acetylene gas once a year, and by action of the sun's rays are turned off, but when there is cloudy weather or it is night, the sun's rays being absent, the light burns.

BANANA TRADE INCREASING.—Bocas del Toro is having an increase in the banana trade, the planters of the cays bringing in about 5,000 bunches a month. In addition to this about 2,000 hectares of land on the cays is being planted to bananas and it is estimated that in 10 months the district will be producing 10,000 to 12,000 bunches ready for sale to the United Fruit Co.

LAND FOR SETTLERS.—Dr. Rafael Niera, special Government agent, has made an inspection trip along the proposed route for a road from Punto Robalo to Boquete, 25 miles long. The Government intends to parcel out the rich virgin land on both sides of this highway to settlers.

PANAMA ADVERTISED.—The Panama chapter of the American Legion and the Association of Commerce are jointly conducting a publicity campaign through the United States on the merits of Panama as an attractive place for tourists and its other advantages. A member of the Legion took to the Legion Convention in New Orleans a special exhibit of Panaman products furnished by the Panaman Association of Commerce.

PARAGUAY.

NEW FACTORIES.—A new factory for picture frames has been started which utilizes the fine native woods, thus reducing one unnecessary item of importation. Another national factory is making household cleaning articles and consequently the importation of similar foreign-made products has diminished.

IMMIGRANTS.—The Office of Lands and Colonies has reported the arrival of 22 immigrants. The office also informs the public that persons desiring foreign labor for estates or farms in the neighborhood of Asunción may send notice of the positions open to the immigration office.

PERU.

RAILROADS.—In his message delivered at the opening of Congress on July 28, 1922, the President spoke of the ad referendum contract made with a Canadian concessionary to construct the following railroads: Huacho to Lambayeque; Lima to Pisco; Huancayo to Ayacucho; Ayacucho to Cuzco; Pisco to Huancavelica; Chuquicara to Jaén via Cajatambo and Cajamarca; Chimbote (or a neighboring port) to Tambo del Sol, near Cerro de Pasco; Tambo del Sol, via the Pachitea, to Pucallpa, on the Ucayali River. A similar contract has been made with another concessionary for a railroad from Yurimaguas to a point on the coast between Paita and Pacasmayo, via Moyabamba. Both contracts will be submitted to Congress for approval.

Construction has been continued on the following lines: Huancayo to Ayacucho; Tambo del Sol to the Pachitea; Chimbote to Recuay; and Cuzco to Santa Ana.

AGRICULTURAL ADVANCES.—Experiments with imported varieties of seed wheat, said the President in his message already quoted, have been carried on in various parts of the Republic with a view to increasing the cultivation of that grain. The new seed obtained from the most satisfactory varieties will be distributed to agriculturists.

Land reclamation by irrigation and drainage has also occupied the attention of the Government. During the present year 7,000

hectares of irrigated land situated in the Imperial Valley, Province of Cañete, will be opened for cultivation. Other similar projects are under consideration.

PERUVIAN MOVING PICTURE COMPANY.—The first film produced by the new Lima Film Co. was given a public showing on July 26.

PETROLEUM BUREAU.—See page 514.

SALVADOR.

ROADS.—Extensive road repairs have been made in the Departments of San Salvador and Cuscatlán by the departmental governments, and in the Department of Santa Ana by the agriculturists' commission.

RAILROADS AND HIGHWAYS.—The President has approved a new contract whereby the Santa Lucía-Metapán Guatemala branch of the International Central American Railroads is to be ready for use by December 31, 1925. The Lempa Bridge was finished in May, 1922. The contract provides that the company will also keep repaired for automobile traffic the Santa Cruz Michapa-San Salvador road; the Santa Ana-Metapán road, and the Santa Ana-Ahuachapán road, while the railroad lines from Santa Lucía to Metapán and from the former to Ahuachapán are under construction, the Government promising to do the necessary work of a permanent character.

ELECTRIC LIGHT PLANT.—San Pedro Nonualco, one of the oldest towns of Salvador, located in the Department of La Paz, has recently established an electric light plant. The town, which is in a rich coffee raising region, has 8,000 inhabitants.

FOREIGN TRADE.—The imports and exports for the first six months of 1922 through the seaports of Acajutla, La Libertad, and La Unión were: Imports, 2,526,956.59 colones, and exports 1,480,374.28, making a total of 4,007,330.87 colones, as against 3,291,884.55 for the corresponding period of 1921.

COFFEE TAX THROUGH EASTERN PORTS.—See page 512.

URUGUAY.

IMPORTED LUMBER.—The Director of Customs has been empowered to require, whenever it appears desirable, the description and statement of origin of lumber shipments with a visé by the Uruguayan consul in the point of origin or embarkation.

MARKETING OF FRUIT.—The fruit marketing committee, which is endeavoring to provide national and foreign markets for the fruit grown in the country, has requested the Montevideo Departmental Council to cooperate with the committee by enlarging the produce market, installing cold chambers, establishing 11 more fruit markets in Montevideo and by affording other facilities to producers.

NEW POSTAL REGULATIONS.—The General Administration of Mails, Telegraphs and Telephones has issued a regulation permitting newspapers to be mailed free to foreign countries with which the frank is not already established. In return the newspapers will devote a certain amount of space to the official notices of the administration.

A new schedule for international parcel-post packages went into effect August 1, 1922, in addition to the foreign mail schedule of April 1 of this year, which did not cover parcel post.

AGRICULTURAL PEST ELIMINATED.—The official committee on agricultural defense of the Ministry of Industries has successfully combatted the pest of *vizcachas*, or Peruvian hares, in the Department of Salto, by means of injecting poisonous gases into the burrows. The *vizacha* is not native to Uruguay but was imported about 30 years ago as a curiosity. It is very destructive to all vegetable growths, practically stripping pastures and rendering them unfit for use, and moreover making the land dangerous to horsemen by its burrows, which lie near the surface and vary from 2 to 6 or 8 meters in diameter.

PLANT PATHOLOGY STATION.—Land was broken several months ago for the Government plant pathology station in Sayago, which will occupy about 5,000 square meters. Trees and fruits will be planted, cages built for observing insect life on trees, and a special section set aside for experiments with sprays.

EXEMPTION FROM EXPORT DUTY.—For two years, beginning June 2, 1922, cattle and sheep exported on the hoof have been exempted from duty.

URUGUAYAN MARBLES.—A Uruguayan firm engaged in quarrying marbles has made arrangements to export this material to a New York agent. The marbles are said to be excellent both in quality and decorative value.

NATIONAL STOCK SHOW.—The National Stock Show of the Uruguayan Rural Association was held in Montevideo the last of August. A more extended notice will be given next month. Regional fairs will be held in Salto and Paysandú.

CANELONES-FLORIDA ROAD.—The section of road between Canelones and Florida is to be repaired at a cost not to exceed 200,000 pesos.

VENEZUELA.

1921 FOREIGN TRADE.—The ordinary imports by Venezuela during 1921 amounted to 72,734,895.176 kilograms, valued at 92,455,819.31 bolivars, while parcel-post imports amounted to 175,831,414 kilograms, valued at 3,052,547.53 bolivars. Exports for the same period amounted to 381,453,382,196 kilograms, worth 133,550,733.34 bolivars. (*Boletín de Cámara de la Comercio de Caracas, July 1, 1922.*)

PROTECTION OF NATURAL INDUSTRIES.—The President has ruled that in the future all articles previously imported for the different branches of public administration shall be purchased from local trade and the producers established in the country.

RAILROAD EARNINGS.—The statistics of the railroads during the first quarter of 1922 are as follows: Tickets sold, 492,044; freight carried, 110,352,684 kilograms; receipts, 4,474,754.07 bolivars, and expenditures, 2,941,915.18 bolivars. (*Boletín del Ministerio de Fomento, May, 1922.*)

ECONOMIC AND FINANCIAL AFFAIRS

ARGENTINA.

CUSTOMS RECEIPTS.—Customs receipts for 1922 through July 15 amounted to 100,124,394 pesos on imports, 6,208,115 pesos on exports, and 8,281,838 pesos port taxes, making a total of 114,614,347 pesos, compared with 115,397,014 pesos for the corresponding period of last year.

BRAZIL.

1922 BUDGET OF EXPENDITURES.—The budget of expenditures for 1922 was approved by presidential decree No. 4,555, of August 10, 1922. The total expenditures are fixed within the limits of 85,931,211.570 gold milreis and 831,193,762.780 paper milreis. The total appropriation for the Ministry of Justice and the Interior amounts to 3,201,020.317 gold and 94,809,042.556 paper milreis; for the Ministry of Foreign Relations, 2,496,220 paper and 5,363,053.543 gold milreis; for the Ministry of the Navy, 4,100,000 gold and 84,073,707.536 paper milreis; for the Ministry of War, 1,700,000 gold and 128,115,730.128 paper milreis; for the Ministry of Transportation and Public Works, 275,069,997.766 paper and 10,473,712.712 gold milreis; for the Ministry of Agriculture, Industry, and Commerce, 382,680.352 gold and 49,173,704 paper milreis; for the Ministry of Finance, 60,710,714.655 gold and 197,395,360.794 paper milreis.

Extensive port improvements will be made at Amarração, Ilheos, Cannavieiras, Victoria, Cananea, and São Francisco, according to the terms of the budget.

CHILE.

OPERATIONS OF INSURANCE COMPANIES.—The Government insurance inspector gives the following report of the 1921 operations of insurance companies in the Republic:

	Insurance.	Premiums.	Reinsurance premiums.
	<i>Pesos.</i>	<i>Pesos.</i>	<i>Pesos.</i>
National fire insurance companies.....	5,857,909,973.92	41,526,539.68	18,008,264.16
Foreign fire insurance companies.....	2,564,829,444.35	20,210,357.25	2,336,696.96
Fire insurance.....	8,422,739,418.27	61,736,896.93	20,344,961.42
Marine insurance.....	484,643,789.42	5,046,625.65	1,374,554.10
Earthquake insurance.....	2,974,712.00	14,164.50	.....
Life insurance.....	399,497,853.36	14,651,425.12	259,073.98
Labor accident insurance.....	98,184,619.05	1,665,380.95	57,700.77
Vehicle and automobile insurance.....	25,462,139.86	624,725.52	34,728.34
Accident insurance.....	5,543,051.31	49,727.75	.....
Insurance on animals.....	2,963,550.00	208,227.91	121,112.92
Other insurance.....	13,247,557.75	42,122.32	15,666.96
Total.....	9,455,256,691.02	84,039,296.65	22,207,798.49

	Tax.	License.	Damages paid.	Present risks.
	<i>Pesos.</i>	<i>Pesos.</i>	<i>Pesos.</i>	<i>Pesos.</i>
National companies ¹	653,581.03	224,000	10,816,912.55	3,111,338,457.26
Foreign companies ¹	456,577.86	78,000	11,198,545.92	1,869,027,407.28
Fire insurance.....	1,112,158.89	302,000	22,015,458.47	4,980,365,864.54
Marine insurance.....	.....	5,000	2,506,059.95	232,175,427.18
Earthquake insurance.....	.....	.....	2,728,962.00	.....
Life insurance.....	.....	61,500	4,434,459.90	395,337,286.91
Labor accident insurance.....	.....	5,000	1,101,914.35	60,143,124.48
Vehicle and automobile insurance.....	.....	.....	693,754.97	17,697,965.31
Accident insurance.....	.....	.....	8,878.75	5,042,790.99
Insurance on animals.....	.....	.....	111,034.40	2,208,321.56
Other insurance.....	.....	.....	1,741.00	10,814,825.00
Total.....	1,112,158.89	373,500	30,873,301.79	5,706,514,867.97

	Accumulated funds.		Profit.		Guaranties.	
	£.	Pesos (Chilean currency).	Profit.	Loss.	£.	Pesos (Chilean currency).
National companies ¹	13,208.11.1	42,954,373.95	<i>Pesos.</i> 9,080,764.94	<i>Pesos.</i> 2,186,158.67	.....	.....
Foreign companies ¹.....	.....	1,052,304.47	4,032,563.98	3,474,088.07	571,200	310,000
Fire insurance.....	13,208.11.1	44,006,678.42	13,113,328.92	5,660,246.74	.....	.....
Marine insurance.....	.....	266,087.72	163,486.79	.....	.....	.....
Life insurance.....	.....	23,249,516.28	326,240.00	.....	.....	.....
Insurance on animals.....	.....	.....	42,859.68	.....	.....	.....
Total.....	13,208.11.1	67,522,282.42	13,645,915.39	5,660,246.74	571,200	310,000

¹ Fire insurance.

COLOMBIA.

LOAN FOR ROAD.—The Secretary of the Treasury of the Department of Boyacá has signed a contract with the representative of an American syndicate for a loan of \$400,000 with an initial discount of 15 per cent, amortizable in 20 years, and guaranteed by the Government subsidy granted the Department for each kilometer of road which it constructs. The loan is to be used to complete the Carare

highway to La Libertad bridge on the boundary of the Department of Santander.

CUBA.

PUBLIC DEBT.—The public debt of Cuba on July 31, 1922, was \$91,542,400, of which \$51,703,500 represented the foreign debt and \$39,838,900 the internal debt. This sum does not include the floating debt, which is about \$50,000,000, making the total national indebtedness about \$141,500,000.

ECUADOR.

ECUADOR'S PUBLIC DEBT.—According to the report of the Ministry of the Treasury the foreign debt of Ecuador at the end of 1920 was 35,834,701.76 sucres, the internal debt, 25,647,345.26 sucres, making a total indebtedness of 61,482,047.02 sucres. This was increased in 1921 by the addition of 1,353,306.52 sucres to the foreign debt and 4,651,066.36 to the internal debt. The increase in the foreign debt was due to the interest and amortization of the previous debt not canceled in 1921, part of the internal indebtedness being due to the same cause. Payments in 1921 on the foreign debt amounted to 474,725.08 sucres and on the internal indebtedness to 1,776,838.87 sucres, making the total payments 2,251,563.95 sucres and leaving a total indebtedness on December 31, 1921, of 65,234,855.95 sucres.

GUATEMALA.

ECONOMIC RECOMMENDATIONS.—A commission appointed by the Government has reviewed the economic situation of the Republic, making the following recommendations:

Stabilization of the national currency, first fixing the legal value of tender used as the basis of contracts.

The minting of nickel and copper coins of small value to replace paper money of the same denomination, which is costly and unhygienic.

The balancing of official budgets with a surplus on the credit side.

The enactment of laws effectively protecting capital, property, and labor.

The development of national production, especially agricultural.

The establishment of a bank of issue to be neither the bank of the State nor of the nation, but a privileged bank.

The establishment of agricultural schools, experiment stations and consulting offices.

The contraction of a loan of not less than \$5,500,000, and not to exceed \$7,500,000, to be administered outside the country by a currency guaranty fund. * * *

HAITI.

TRANSFER OF BANK CONTRACT.—See page 513.

HONDURAS.

CHOLUTECA DEPARTMENT IMPORT TAX.—See page 514.

MEXICO.

COINAGE.—The coinage of money from July, 1921, to June, 1922, was as follows: Gold, 24,810,000 pesos; silver, 19,729,000 pesos; and bronze, 334,500 pesos, making a total of 44,873,500 pesos. (*President's message.*)

PANAMA.

NEW NATIONAL BANK BUILDING. —The Banco Nacional de Panama has moved into its new building, which has all the modern conveniences and appointments. On June 30, 1922, the bank had assets amounting to \$2,436,774.70, of which \$83,179.61 were in real property; \$3,906.81 in furniture; \$422,818.54 in cash; \$684,002.21 in loans with personal guaranties; \$1,062,393.61 in loans secured by mortgages; \$16,707.88 in uncollected drafts, and \$163,766.04 in agencies. Its liabilities amounted to \$2,436,774.70, of which \$750,000 represented the capital; \$350,000 time deposits; \$946,557.63 sight deposits; \$24,760 unpaid drafts; \$306,304.84 reserve fund, and \$59,159.23 undivided profits.

PERU.

ITALIAN BANK.—On August 1, 1922, the Italian Bank of Lima opened a branch in Trujillo.

SALVADOR.

COFFEE TAX.—A tax of 20 centavos per quintal is to be laid on coffee from the eastern part of the Republic exported through La Unión or El Triunfo. The revenue from this tax will be used for road improvements in the Departments of San Miguel and Usulután, and for construction of the road from Usulután to Berlín via Santiago de María, and the Usulután-Jucuapa-Santiago de María road.

URUGUAY.

MORTGAGE BONDS.—The Banco Hipotecario was authorized on July 7, 1922, to issue mortgage bonds of series X to the value of 20,000,000 pesos.

VENEZUELA.

GOVERNMENT REVENUES.—The Government revenues and expenditures for 1921, according to the report of the Minister of the Treasury presented to the 1922 Congress, were: Revenues, 65,305,897.14 bolivars, and expenditures, 102,117,079.73 bolivars, the difference between the receipts and expenditures being supplied by the treasury reserve fund, which on January 1, 1921, was 72,866,513.83 bolivars. The customs duties and consular fees during the same period amounted to 26,127,543.46 bolivars, and the internal revenue to 39,178,358.68 bolivars.

COINAGE OF MONEY.—See page 514.

LEGISLATION

COSTA RICA.

GUARDIANSHIP.—A bill before Congress proposes changes in the civil code by which women would receive the right of guardianship, both for children and incompetent husbands.

TAXES.—Decree No. 29, July 7, 1922, extends the export taxes defined in Decree No. 30, July 7, 1921 until June 30, 1924, with the exception of the recoverable tax on cacao, also stating that during the period from July 7, 1922, to June 30, 1924, lands planted to coffee are free of land taxes. The revenues from export taxes are to be used to pay the ordinary expenditures of administration up to July 1, 1924. The income tax of Law No. 73, December 18, 1916, is again made effective with a change excepting from taxable profits of chance those coming from the National Lottery of Asilo Chapuí. The revenue of this income tax is to be used to pay the Government's debt to the Banco Internacional de Costa Rica. The income tax becomes effective on January 1, 1923. Coffee planters while paying export taxes on coffee are not obliged to pay on income derived from this product.

ECUADOR.

REGISTRATION OF SUGAR PLANTATIONS.—A decree was issued and published in the *Registro Oficial* of June 5, 1922, regulating sugar plantations and requiring registration of all such properties together with the names of the owners and the locality of the plantation, under penalty of fine. Special form requests have to be made out and filed with the local officer of alcohol monopoly, for the sowing of sugar cane, its reaping and distillation into liquor. The full text of the regulation may be found in the *Registro Oficial* of June 5, 1922. This regulation was made to protect the Government monopoly on alcohol.

REGISTRATION OF TOBACCO STOCKS.—A similar regulation to the one covering cane and alcohol has been put into effect on tobacco stocks and manufacture to protect the tobacco monopoly. The full text of the regulation is published in the *Registro Oficial* of June 8, 1922.

HAITI.

TRANSFER OF BANK CONTRACT.—By a law of August 7, 1922, Government sanction is given to the contract made July 18, 1922, between the Secretary of Finance and Commerce of Haiti and the National City Co., of New York, by which the Government concession made October 21, 1910, to the Banque de l'Union Parisienne,

granting it participation in the organization of the Banque Nationale de la Republique d'Haiti, is transferred to the National City Co.

REGISTRATION OF FOREIGNERS.—A law of July 26, 1922, requires the registration of foreigners with the police authorities, who will issue a certificate upon payment of \$2.

HONDURAS.

CHOLUTECA DEPARTMENT IMPORT TAX.—Decree No. 29 establishes a tax of 1 centavo per half kilogram of foreign merchandise imported into the Department of Choluteca through the ports of El Pedregal and San Lorenzo, with the exception of flour and other tax-free articles. Live stock taken out of the Department is subject to a tax of 50 centavos per head on cattle, 75 centavos per head on horses, and 1 peso per head on mules. A surtax of 8 centavos is laid on each bottle of spirituous liquor made in the Department. The taxes herein defined with the exception of those collected in the district of Pespire will furnish funds for the installation of a drinking water supply in the city of Choluteca, and the construction of a highway from the small port of San Lorenzo to Río Negro, via the Department capital. Those revenues collected in the district of Pespire are to be used upon the completion of the water supply for the building of an electric-light plant and a hennequen factory, and for the development of hennequen cultivation in the township of Pespire.

TAXES FOR WATER SUPPLY.—Each farmer or stock raiser in the district of Siguatepeque must pay a registration tax of 5 pesos; a surcharge of 12 centavos is laid on each bottle of spirituous liquor sold and a surcharge of 25 centavos on each animal slaughtered in the municipalities of the district. The funds thus collected are to be used for the installation of drinking water and an electric-light plant in the capital of Siguatepeque.

PERU.

PETROLEUM BUREAU.—By a decree of April 14, 1922, there has been organized in the Department of Promotion a petroleum bureau, both technical and administrative in its nature.

VENEZUELA.

COINAGE OF MONEY.—Congress has passed the law authorizing the coinage of 7,000,000 bolivars in silver, and 14,000,000 bolivars in gold.

DIPLOMATIC SERVICE LAW.—The National Congress has passed a law governing the appointment, promotion, suspension and responsibility of members of the diplomatic corps, and related matters. The complete text of the law is to be found in the *Gaceta Oficial* of July 25, 1922.

INTERNATIONAL TREATIES

GREAT BRITAIN-BRAZIL.

TREATY OF DUAL NATIONALITY.—The signing of the treaty of dual nationality between Great Britain and Brazil took place at the Itamaraty Palace, Brazil's foreign office, on July 29, 1922. The general effect of the treaty will be to do away with all doubt and confusion in connection with cases of dual nationality, while completely safeguarding the rights and wishes of the parties concerned. The act was signed by Dr. Azevedo Marques, Minister of Foreign Relations, with full authority from the President of the Republic, and Sir John Cecil Tilley, the British ambassador, with full powers from His Majesty King George V.

The text of the treaty as given in Wileman's Brazilian Review for August 2, 1922, is as follows:

ARTICLE I. 1. Any Brazilian citizen who by virtue of birth in Great Britain possesses also British nationality and who:

(a) Has performed military, naval, or air service in Brazil, or has completed a course of official, military, naval, or air instruction in Brazil, or

(b) Being of the age of twenty-one years makes a declaration of alienage in accordance with the laws of Great Britain, shall be exempt from military service in Great Britain; and in cases covered by (b) loses British nationality for all purposes.

2. Any British subject who, by virtue of birth in Brazil, possesses also Brazilian nationality and who:

(a) Has performed military, naval, or air service in Great Britain, or has completed a course of official military, naval, or air instruction in Great Britain; or

(b) Being of the age of twenty-one years loses his Brazilian nationality in the manner hereinafter provided, shall be exempt from military service in Brazil.

ART. II. For the purposes of paragraph 2 (b) of Article I production by any person to whom that paragraph applies of a certificate of British nationality, issued under the hand of one of His Majesty's principal secretaries of state, shall be deemed for the purposes of Brazilian law to be equivalent to the grant of a certificate of British naturalization to that person, and shall signify the loss of Brazilian nationality by virtue of the present treaty and for all purposes.

ART. III. Each of the high contracting parties shall establish, through the proper departments, the mode of complying with the requirements of the preceding articles.

ART. IV.—The present treaty shall be ratified by the high contracting parties in accordance with the law of their respective countries, and the ratifications shall be exchanged in the city of Rio de Janeiro as soon as possible. The treaty shall remain in force until terminated on a notice of one year by either of the high contracting parties.

The Rio de Janeiro correspondent of the *London Times*, according to the Review of the River Plate, telegraphed the paper which he

represents that "credit for the initiative which led to the successful consummation of the treaty must be given to the Brazilian Government. It is the first treaty of its kind in the world, and enunciates a new formula of private international law which will probably have far-reaching significance and serve as the basis of further international understandings. The ceremony of the signing of the treaty was invested with great solemnity and was attended by many foreign diplomats."

COSTA RICA-UNITED STATES.

EXTRADITION TREATY.—The extradition treaty between Costa Rica and the United States signed in the Presidential Mansion, San José, January 25, 1922, has been ratified by the Costa Rican Congress, and was signed by President Acosta June 12, 1922. (*Gaceta. June 15, 1922.*)

FRANCE-GUATEMALA.

COMMERCIAL CONVENTION.—The Commercial Convention made between France and Guatemala was signed on July 28, 1922, by the Guatemalan Minister of Foreign Relations and the minister of France. By the terms of this convention the products of Guatemala will have a 75 per cent reduction of customs duties for import to French markets, while French products will receive a reduction of 10 to 30 per cent upon being imported to Guatemala for sale. (*Guatemalteco, August 4, 1922.*)

SALVADOR.

INTERNATIONAL OPIUM CONVENTION.—The National Assembly on May 24, 1922, ratified the Hague International Opium Convention and final protocol. The President signed the decree on May 29, 1922. (*Diario Oficial, June 14, 1922.*)



ARGENTINA.

SCHOOL FOR MALNOURISHED CHILDREN.—The president of the board of education passed a resolution naming the school for malnourished children the Simón Bolívar School, in memory of the exponent of the ideal of American fraternity and cooperation. This school cares for the underdeveloped children of Buenos Aires.

VOCATIONAL SCHOOL FOR WOMEN.—This Buenos Aires school furnished to women free courses in bookkeeping and accounting as

well as in spinning and weaving. The latter course serves a double purpose, for in addition to teaching an occupation which is remunerative, it encourages the use of national raw materials.

INDIGENE SCHOOLS.—Seven schools are to be opened in the Chaco and Formosa territories to care for the education of children of nomadic tribes of aborigines. These tribes now come to the settlements at certain seasons to work during the cutting of sugar cane, and some remain after the season is over. The board of education plans to establish agricultural and industrial schools in these parts of the country to gain the confidence of the indigenes, allow them to learn trades, and receive the product of their labor. The course of study, hours, and other details are to be worked out on the ground. The main object for the present is to win the confidence of these people and to make them desirous of sending their children to school.

CONTINUATION SCHOOLS.—According to the statement furnished by the National Council of Education the continuation schools offered the following courses during July: Schools for women—needlework, cutting and dressmaking, French, English, music, Italian, German, drawing, Spanish, stenography, arithmetic, accounting, and typing. The total enrollment was 14,361, and the average attendance, 6,807 girls or women.

The continuation schools for men had the following courses: Accounting, arithmetic, stenography, Spanish, French, English, drawing, typing, music, electricity, chemistry, telegraphy, Italian, German, geography, first aid, geometry, and writing. The total enrollment was 10,091, and the average attendance 3,992.

BRAZIL.

VALIDATION OF FOREIGN DIPLOMAS.—The Superior Council of Education has approved the report of the Committee on Legislation and Appeals stating that after the candidate has presented a thesis, discussed the same before the faculty, and passed a practical test, the Brazilian Academy will validate foreign diplomas which are duly authenticated by a Brazilian consul and valid for the exercise of a profession in the country where the courses were taken. The holder of the validated diploma shall enjoy all the rights conferred by the Brazilian Academy on its own pupils, but will not receive a new diploma from the Academy.

CHILE.

REGISTRATION IN PRIMARY SCHOOLS. Last May, according to figures of the director of primary instruction, the registration in the primary schools of the Republic reached 390,052, while the average attendance was 304,626, both being the highest figures on record.

The largest increases in registration over the same month of 1921 were shown in the following Provinces: Bío-Bío, 3,565 pupils; Santiago, 2,613 pupils; Cautín, 2,556 pupils; Ñuble, 2,387 pupils; Linares, 2,213 pupils; and Colchagua, 2,158 pupils.

SALARIES OF WOMEN TEACHERS.—The women holding teaching and executive positions in the high schools for girls have petitioned Congress that their salaries be made equal to those of men occupying similar positions in the high schools for boys. The difference in salary, the petition states, has existed since 1918.

EXCHANGE PROFESSOR.—Prof. José María Gálvez has completed his course in the University of California on *The History and Present Culture of Chile*. It was greatly enjoyed by a large number of students. When asked what had most impressed him at the university, Professor Gálvez replied. "The sanity, high spirits, and kindness of the young men and women in my class."

COSTA RICA.

JESÚS JIMÉNEZ CENTENARY.—See page 528.

GABRIELA MISTRAL.—See page 528.

DOMINICAN REPUBLIC.

GRADUATES.—Eleven young women were graduated in July from the advanced Normal School of Santo Domingo.

ECUADOR.

SCHOOL FACTS.—According to data furnished by the Minister of Public Instruction Ecuador has now 1,718 schools. In 1921 there were 103,344 children in attendance at the primary schools, while in 1922 the number was 108,920. The number of teachers increased from 2,438 in 1921 to 2,548 in 1922.

During the year 27 school buildings were completed, among them the Belén building of the Colegio 24 de Mayo for young women in Quito, and the model school Nueve de Octubre of Guayaquil, both equipped with the latest improvements.

GUATEMALA.

EDUCATIONAL REPORT.—From the *Memoria de la Secretaría de Instrucción Pública* presented to the 1922 National Legislative Assembly the following facts are taken:

The total number of schools in Guatemala at the time of the issue of the report was 2,218, of which 921 were for boys, 1,084 for girls, 90 private schools for boys, and 123 private schools for girls. During the year 76,970 pupils were enrolled, the average attendance being 66,282.

The Normal School for Indigenes was established by the decree of December, 1920, to prepare a staff of teachers for elementary and rural teaching. This school takes its students, who are to be future teachers of the indigenes, from among that race, that they may be better able to work with their pupils and further instruction among the dwellers in country districts.

MEXICO.

MACHINERY FOR ENGINEERING SCHOOL.—The Secretary of Public Education has authorized the expenditure of 400,000 pesos for the equipment of the shops of the Practical School of Mechanical and Electrical Engineering. The shops will have the best machinery for the use of the students and will be able to construct many articles of school furniture for the use of the national department of education.

MEXICAN LIBRARIES.—The Mexican Government, upon the suggestion of the Department of Education, has begun to establish Mexican libraries in some of the Central American countries and will continue the work later on in other American countries. The libraries are small, consisting of about 200 volumes of the work of Mexican authors, representative of the best in Mexico's literary and artistic culture.

PARAGUAY.

SCHOOL FUND FOR POOR CHILDREN.—In the Libertad school during July, the school fund for poor children provided a number with clothing and school necessities. This is one of the schools of Asunción.

PERU.

SCHOOL ATTENDANCE.—The number of pupils of both sexes in attendance upon the schools of the Republic during the last school year, as given by the President in his message of July 28, was 202,828, an increase of 8,127 over the figure for the previous year.

POPULAR UNIVERSITY.—In July the *Círculo Universitario* of Callao opened a Popular University—lectures and classes for workmen—in that city.

SALVADOR.

TRADE SCHOOL.—As part of the reconstruction work done for the victims of the Salvador flood, trade schools are to be founded for the benefit of men and women workmen who suffered losses.

URUGUAY.

SCHOOL LIBRARY.—In the departmental secondary school of San José, which has 100 pupils, there is a library of 8,000 volumes, both textbooks and reference works, which is of the greatest assistance to

the pupils, especially in the case of those unable to purchase their own textbooks.

VETERINARY SCHOOL COUNCIL.—Two members of this council are elected every four years by the veterinarians who are not professors in the school, and one by the students, thus giving both present and past pupils of the school a voice in its management.

ASSOCIATION OF TEACHERS OF SECONDARY SCHOOLS.—In July the teachers of secondary schools met in Montevideo to form an association similar to the one in France. Many topics of professional interest were discussed, among them being the subject of advanced study.

OPEN-AIR SCHOOLS.—The third-year students of the normal school for girls made a visit not long ago to Open Air School No. 3 in Montevideo. The school possesses equipment for the complete outdoor instruction and life of the pupils—desks, tables for lunch, steamer chairs where the children rest, and provision for manual training.

NATIONAL COUNCIL OF PRIMARY AND NORMAL INSTRUCTION.—At an August meeting of the council favorable action was taken on the following, among other items of business presented: The offer of free services to school children made by a woman dentist in Rio Negro; request of the National League Against Alcoholism to give stereopticon lectures in the schools; and petition of a kindergarten principal to carry out some psychological experiments with the aid of the fourth-year students of the normal school for girls.

VENEZUELA.

NEW CHAIR.—The President has established a Chair of Civil Law and Procedure in the Caracas School of Political Science.



ARGENTINA.

TEACHERS' VACATION HOUSE.—The *Sociedad Amigos de la Infancia* (Society of the Friends of Children) of Santa Fé proposes to build a vacation home for teachers where they may rest and recuperate from their labors. The funds are to come from a monthly contribution of 10 centavos by each child in the schools of the Province of Santa Fé.

TUBERCULOSIS TREATMENT FUNDS.—The President sent a message to Congress urging the passage of a bill now before it which carries an appropriation for the provision of adequate treatment of tubercular patients and plans for a nation-wide campaign against

the disease. The most important mountain sanitarium, Santa María, in Córdoba, has now twice the number of patients it was built to accommodate.

INEXPENSIVE HOUSES.—The council of Buenos Aires has passed an ordinance governing the conditions of sale of 10,000 houses of reasonable cost to be constructed by a company for sale to employees and workmen whose salary does not exceed 400 pesos a month. It was decided that the monthly payments should be 85 pesos during the term of the mortgage contract, 3,750 pesos of the mortgage to be paid to the company as the balance of the price. The houses are to be delivered by lot, with special consideration for workmen with large families.

BOLIVIA.

WORKMEN'S SAVINGS.—A Government regulation has gone into effect that after July 1, 1922, every employee of the Department of Mails and Telegraph must make a monthly deposit of not less than 5 per cent of his salary in the workmen's savings department of the Banco de la Nación Boliviana. This regulation has been established to encourage the habit of saving among the employees of the Post Office Department as a provision for old age and retirement. The funds so deposited may not be withdrawn without special permission of the head of the office in which the employee is engaged; this will be given for such reasons as resignation, change of office, or illness.

BRAZIL.

INTERNATIONAL CONGRESS.—A congress known as the Congresso Internacional de Previdencia Social was held in Rio de Janeiro during October. Among the subjects considered were all forms of insurance and mutual-credit associations, cooperative societies, and social hygiene. (*Commerce Reports, August 28, 1922.*)

CHILE.

REFORM SCHOOL FOR BOYS.—The reform school for boys located at Santiago, which is the only institution of its kind in the Republic, recently celebrated the twenty-fifth anniversary of its founding. It has shops for the following trades: Tailoring, carpentry, horse-shoeing, shoemaking, and bookbinding, and also a farm where practical agriculture is taught. The farm products, which won a prize at the Fruit Culture Exposition this year, are also sold to the public. There are usually about 200 boys in the school.

DRINKING WATER FOR IQUIQUE.—The construction for the new drinking water supply of Iquique has now been completed. The water is brought from the Chintaguay, some distance from the city.

Two large tanks of reinforced concrete, each having a capacity of 4,000 cubic meters, have been constructed, so that the city now may count on a supply of 500 tons of water per day, which will be further increased by the completion of some small additional constructions. The piping in the city alone is estimated to have a length of 60 kilometers.

DENTAL CLINIC.—The Odontological Society has offered to establish a dental clinic in the asylum of the Sociedad Protectora de la Infancia in Santiago, which cares for 1,000 children. It goes without saying that the offer was gratefully accepted. The clinic will bear the name of Arturo Sierra, who worked untiringly in the cause of oral hygiene, especially for children.

CIVIL AND POLITICAL RIGHTS OF WOMEN.—The executive committee of the National Council of Women has sent to all the members of the Chamber of Deputies a letter urging the removal of the legal incapacity of women on account of sex, and in general, the granting of civil and political equality with men. Inclosed was a copy of a proposed law which the Council deems adequate to this end.

PATRONATO DE LA INFANCIA.—The twenty-first annual report of this important child welfare society of Santiago gave the following data for the asylum and 11 milk stations (year ending June 30, 1922): Number of children who attended during year, 8,180; died, 737; per cent of mortality, 9.1; number of children vaccinated, 4,985; number of mothers, 4,683; number of injections to syphilitic women, 16,612; feedings distributed, 1,661,516; home visits by lady visitors, 4,441; home visits by inspectors, 12,746; consultations with mothers, 13,900; prescriptions filled, 11,412; consultations for sick and well children, 93,596.

Moreover, the Magdalena kitchen served 12,736 lunches during the year, and the layette section made 18,610 pieces of clothing.

The society considers that its data indicate a marked increase in the number of breast-fed children. Mothers of such children are encouraged in every possible way and at their monthly meetings are given practical talks on child culture, hygiene, and other related subjects.

Dental clinics have been opened at several of the milk stations.

In September, 1921, began the practice of visiting in their homes the children enrolled at the milk stations. This includes the inspection of the child, the mother, the family, and the dwelling. Since illegitimacy is recognized as a powerful factor in infant mortality, it has been the aim of the society to aid in establishing normal family relations as far as possible.

The expenditures for the year were 554,903.05 pesos. The property owned by the Patronato is worth 1,424,728.51 pesos.

SOCIETY OF PEDIATRICS.—A Society of Pediatrics has been formed in Santiago under the presidency of Dr. Calvo Mackenna. Dr. C. Sanhueza is honorary president.

PEOPLE'S HOUSE NO. 1.—The People's House in Santiago was organized by the General Confederation of Labor, a Christian labor organization whose general purpose is the mutual cooperation of classes. Every Sunday lectures are given by a sociologist, after which there is an open forum. The discussion is participated in by workers of all shades of opinion.

COLOMBIA.

MILK DISTRIBUTION REGULATIONS.—The Director of the National Hygiene Bureau has issued regulations governing the distribution of milk. The sale of milk is prohibited in places not used exclusively as dairies; house-to-house vending is absolutely forbidden. Exception is made in the case of milk treated by sterilization, pasteurization, or other special methods, providing it is in small containers, well stoppered and sealed, and carried direct from the dairy to the consumer's house. These regulations apply throughout Colombia.

Milk sold to the public should have a density of 1.0285 to 1.034. Milk containing less than 2.90 per cent butter fat, less than 3 per cent casein or over 88 per cent of water is to be considered adulterated and unsuited to consumption. Milk found to contain starch, flour, or other foreign substances, though added for the purpose of preservation, is to be considered adulterated. Milk containers must be washed daily in boiling water containing 2 per cent bicarbonate of soda, and kept covered. Milkers, distributors, and vendors of milk must all be provided with medical certificates showing that they are free from contagious diseases.

COSTA RICA.

TRIBUTE TO DOCTOR SCHAPIRO.—The representative of the Rockefeller Foundation in Costa Rica, Dr. Louis Schapiro, on July 22, received a gold medal from Costa Rica, pinned on by Señora de Acosta after a presentation speech by her husband, the President of Costa Rica. Doctor Schapiro has been working in the foundation's campaign against yellow fever, hookworm, and malaria, in Costa Rica, and is now leaving the country which has so much benefited by the helpful science of the beneficent institution which Doctor Schapiro represents.

WOMEN SANITARY INSPECTORS.—The women of San José who are interested in civic improvements are advocating the appointment of women sanitary inspectors.

WORKMEN'S HOUSES.—A number of workmen's houses are to be built in San José in November, the cost of each not to exceed 2,500

colonos. They will be furnished only to persons submitting a certificate showing that they are poor and possess no real property. Each house will contain a living room, two bedrooms, kitchen, dining room, bath, and patio.

PUNTARENAS HOSPITAL.—The San Rafael Hospital of Puntarenas is being equipped with a new ward, all plumbing conveniences and surgical instruments.

BUREAU OF PUBLIC SANITATION AND HEALTH.—A new Bureau of Public Sanitation and Health has been created as a branch of the police department to care for questions relating to the maintenance of public health and sanitation.

CUBA.

CURE OF LEPROSY.—The director of the Leprosarium of San Lázaro in the town of Rincón reported to the director of sanitation that three leper patients from among those treated with chaulmoogra oil had been dismissed as cured, after having been tested in various ways by the Laboratory of Scientific Investigations.

WHITE SLAVE TRAFFIC.—The Secretary of Justice and the President of the Republic are to study the white slave traffic question in order to make recommendations in regard to legislation in the matter in accordance with the conclusions of the Geneva Conference of the League of Nations. The new legislation is to be introduced into the present Penal Code.

BETTER BABIES.—Various cities have organized Mothers' Committees to carry on a campaign for the benefit of mothers and children and to arrange for the Better Babies show to be held in Habana on November 25, 1922, in connection with the Sixth Latin American Medical Congress.

GUATEMALA.

WORKMEN'S COOPERATIVE AND SAVINGS ASSOCIATION.—This association of Guatemala City sells to its members at reasonable prices large quantities of foodstuffs as well as materials for the carrying on of trades, such as hardwoods, various kinds of leather and other materials. Its building contains a hall for public lectures or entertainments. The association has an authorized capital of 5,000,000 pesos national money of which 2,000,000 are already covered; it is expected that the remainder will be subscribed soon. About 5,000 workmen are either stockholders or depositors, while 2,000 more form the clientele of the store. This association opened two groups of modern houses for workmen, both inexpensive and sanitary, on June 18, 1922. It also has agents in other parts of the country who send in orders for considerable amounts. The directors of the institution are connected with the Federación Obrera para la Protección Legal del Trabajo.

NICARAGUA.

GOVERNMENT FUNDS TO HOSPITAL.—The Government has contributed 1,000 córdobas to the completion of the new operating room in the San Vicente Hospital, in the city of León.

PANAMA.

CHEPO THANKS ROTARIANS.—The people of Chepo have sent a letter of appreciation to the Panaman Rotarians to thank them for their efforts in having sent aid to Chepo in extirpating the hookworm prevalent in that district.

SALVATION ARMY.—On the occasion of the visit of a Salvation Army official to Panama, the press took the opportunity to say that the Salvation Army has done much good, especially for stranded seamen, in the cities of the Republic, and continues to furnish cheer and help to others as efficiently as it did to the soldiers in the war.

PARAGUAY.

PARAGUAYAN RED CROSS.—A recent entertainment held in the Asociación Argentina clubrooms in Asunción netted 28,000 pesos for the Paraguayan Red Cross.

PERU.

EMPLOYEES' WELFARE.—A British petroleum company operating in Talara, Negritos, and Lagunitas maintains for the employees two hospitals, served by three physicians; five schools for employees' children; and four clubs, provided with billiard tables, libraries, tennis courts, and moving pictures. Expert instructors are also provided to aid employees in perfecting their technical knowledge.

LIMA WATER SUPPLY.—The Foundation Co. is constructing a reservoir 80 meters long, 40 meters wide, and 4 meters deep for holding the drinking water supply for Lima. There will also be a reserve tank of the same size.

ANTITUBERCULOSIS LEAGUE.—A Women's Antituberculosis League has been formed in Lima, and plans to make every effort toward checking this widespread disease.

SANITARY MEASURES IN CALLAO.—Under the direction of the departmental physician of the Public Health Bureau, the inhabitants of Callao will be vaccinated against smallpox and bubonic plague. All other sanitary and prophylactic measures necessary to stop the spread of these two diseases will also be carried out under his jurisdiction.

SALVADOR.

GOTA DE LECHE (MILK STATION).—The milk station of Santa Ana is progressing very rapidly, as there is much enthusiasm for the good

work it is doing. Lectures on child welfare and care are being given for girls over 15 years of age, and for mothers. These lectures are not included in the regular Tuesday morning talks which the doctors give to mothers who bring their children for treatment.

URUGUAY.

NATIONAL LEAGUE AGAINST ALCOHOLISM.—The league is continuing its visits to the public schools of the capital for the purpose of organizing School Temperance Legions. In one of the schools children read compositions regarding the effect of alcohol, and displayed posters which they had drawn.

FEMININE REPRESENTATION.—The Uruguayan Alliance for Women Suffrage has sent a letter to all women's organizations, both cultural and charitable, asking them to use their influence to secure women members on the councils of primary and normal instruction, of public charity, of delinquent minors, and all other similar boards.

ASSOCIATION OF URUGUAYAN NURSES (ASOCIACIÓN DE NURSES DEL URUGUAY).—The newly organized Association of Uruguayan Nurses, according to *La Mañana* the first of its kind in South America, has decided to adopt as its badge a white cross on a light blue field, bearing the initials A. N. U. and the words Honor: Patria, the motto of the association.

VENEZUELA.

GOTA DE LECHE (FREE MILK STATION).—The services of the Gota de Leche of Caracas during the second quarter of 1922 were as follows: Free distribution of milk, 2,639 quarts; 983 consultations for children under 3 years of age; 315 ear, nose, and throat consultations; 235 eye consultations; 12 consultations for diseases of the digestive tract, and 7 consultations in gynecological cases. Free milk formulas for children under 3 years totaled 1,058; injections, 119; chemical analyses, 116; and operations of different character, including 11 tonsilectomies and 11 adenoidectomies, 36.

EYE, NOSE, AND THROAT CLINIC.—The President of the Republic has instituted a special eye, ear, nose, and throat section in the National Charity Home, under Government supervision. The head of the new clinic is obliged to attend all cases of serious affections of the eye, ear, nose, and throat brought about by industrial accidents or other causes. The head of the clinic will give two days a week to free consultations outside the clinic for the sick poor and for school children who lack means to pay for treatment. The clinic will have three sections: Outside consultation, operating room, and convalescent ward for patients after operation. The Administration of Municipal Revenues will pay the cost of establishment and maintenance.

GENERAL NOTES

ARGENTINA.

FIRST NATIONAL HISTORY CONGRESS.—The First National History Congress was opened on July 29 in Buenos Aires, being attended by various Government delegates from the Provinces, representatives of libraries and other persons interested in the preservation of national records. The congress was held under the auspices of the American Academy of History, whose president spoke of the aims of the institution in the opening session.

UNVEILING OF STATUE.—"El Canto al Trabajo" (The Hymn to Labor) is the name of a statue by Rogelio Iturria recently unveiled in the Fine Arts Museum.

ARGENTINE POLO TEAM.—The Argentine polo team has been visiting the United States where it has played a number of important matches, its fine sportsmanship making an excellent impression.

BRAZIL.

NATIONAL MUSEUM OF HISTORY.—President Epitacio Pessoa has decreed the establishment of a National Museum of History, the object of which is to collect, classify and exhibit to the public objects of historical importance, principally with regard to Brazil, and otherwise promote courses, lectures, commemorative celebrations, and publications tending to the preservation of national history and traditions.

CHILE.

CHILE IN THE LEAGUE OF NATIONS.—Sr. Agustín Edwards, ambassador of Chile in Great Britain, received the distinction and honor of being elected president of the third assembly of the League of Nations, which convened in Geneva last September.

ART EXHIBITION.—The winter season in Santiago has been marked by numerous events in the world of art, concerts as well as exhibitions of paintings. Among the latter may be mentioned the pictures of the Spanish artist, Sr. Ramón Palmarola, which are notable for their brilliance of color, whether the subject is landscape, or women of the Spanish type, so well depicted by this painter. Sr. Rafael Correa gave one of his rare and much appreciated exhibitions, consisting mainly of pictures of animals in landscape settings. These backgrounds show his great love for his native Chilean scenes. Sr. Benito Rebolledo Correa is another Chilean artist who seeks his inspiration in country scenes, and transfers to canvas the spirit of his country's mountains and plains.

CHILEAN MUSICIANS IN MEXICO.—Sr. Enrique Soro, director of the National Conservatory of Music, recently directed the Mexican national symphony orchestra in the City of Mexico, which played Sr. Soro's symphonies. Sra. Cristina Soro de Baltra sang.

COLOMBIA.

HISTORICAL DICTIONARY.—Sr. Manuel de J. García has completed a three-volume historical dictionary containing 2,500 biographies of the most notable personages of the country from colonial times to the present period. The compilation of data and the writing of this monumental work occupied the author nearly 15 years.

COLOMBIAN-VENEZUELAN FRONTIER.—In pursuance of the decision rendered by the Swiss Government on the question of the Colombian-Venezuelan frontier, commissions have been appointed to mark the boundary. The commissions presided over by Colonel Lardy and Professor Berchtold are composed of eminent authorities on astronomy, physics, geography, and engineering. A member from the Ministry of Foreign Relations will accompany each of the commissions. When the work is finished the commissions will return to Switzerland to render their reports, upon which the Federal Government will base its final decision as to the boundaries of the two Republics. (See page 530.)

STATUE OF DR. RAFAEL NÚÑEZ.—On August 3, the unveiling of the statue of the statesman Dr. Rafael Núñez, President of the Republic from 1880 to 1894, took place in the south court of the National Capitol, Bogotá. The ceremony was attended by the President of the Republic, the ministers of the cabinet, the diplomatic corps, and a distinguished audience.

COSTA RICA.

LEGATION IN GUATEMALA.—Costa Rica has established a legation in the Republic of Guatemala and has appointed as chargé d'affaires ad honorem Señor Doctor Fernando Yglesias.

JESÚS JIMÉNEZ CENTENARY.—In honor of the centenary of ex-President Jesús Jiménez, under whose administration the duty of the Nation to provide free, obligatory, primary education was incorporated in the constitution, June 18, 1923 is declared a national holiday. Civic week will be held in all education centers from June 18-25, 1923, and other plans for the celebration of the date are also being made.

GABRIELA MISTRAL.—The famous Chilean poet and educator, Gabriela Mistral, is to visit Costa Rica in November. She is anxiously awaited, and will be the recipient of many social and official honors.

LEGION OF HONOR DECORATIONS.—France has bestowed the title of grand official of the Legion of Honor upon President Acosta and

and that of knight commander of the Legion of Honor upon Licenciado Alejandro Alvarado Quirós.

CUBA.

INTERNATIONAL FINGERPRINT CONVENTION.—The Cuban Government is preparing to participate in the International Fingerprint Convention of Police to take place in Buenos Aires. The convention is to consider systems of criminal identification.

MEXICO.

COMMEMORATIVE MEDALS.—Among the gifts of Mexico to Brazil upon the occasion of the latter's Centenary of Independence was a series of gold and bronze medals the obverse of which bore the heads in high relief of the legendary Aztec heroes with the inscription "Mexico to Brazil, on the Centenary of her Independence." The reverse of the medals showed the head of the Aztec eagle among other Aztec decorative motives, and bore the dates 1822-1922. In addition to the medals Mexico presented to Brazil a statue of Cuáuh-temoc, a replica of that in the Paseo de la Reforma, Mexico City; a beautiful building erected in the Brazilian Exposition grounds and handsome photographic and art albums on Mexican and Brazilian subjects.

NICARAGUA.

HONORARY DEGREE.—Gen. Emiliano Chamorro, Nicaraguan minister to Washington, has received the honorary degree of doctor of laws from the Military College of Pennsylvania. Similar degrees were conferred upon an American Senator, and upon the Secretary of War of the United States. The diploma presentation speech was made by the mayor of Philadelphia.

LABOR BANQUET.—The laborers of Granada recently offered a banquet to the Secretary of the Treasury and Public Credit, Alcibiades Fuentes, in recognition of his services in office. Many prominent persons from Managua attended, the American minister who had just arrived accepted the invitation to attend, and labor representatives came from León, Masaya, and Managua.

PARAGUAY.

TREES FOR THE STREET.—The Calle Brasil in Asunción is to be bordered by trees now being planted. This is the beginning of a tree-planting program to be followed in many streets of the city.

PERU.

TO THE UNKNOWN SOLDIER.—With impressive ceremonies the monument to the unknown soldier of the War of the Pacific was unveiled July 26, on the Morro Solar near Lima. The bronze statue is the work of Señor Agurte.

SCIENTIFIC ASSOCIATION.—On July 30 took place the brilliant official inauguration of the Peruvian Association for the Progress of Science, the President of the Republic presiding. Sr. José J. Bravo, president of the association, made an address, and Dr. Julio C. Tello outlined the society's plans.

SALVADOR.

GRAND CROSS OF ISABEL LA CATÓLICA.—The Spanish minister to Salvador, the Viscount of Pegullal, on July 12, 1922, presented to Don Juan Francisco Paredes the grand cross of the Order of Isabel the Catholic, conferred upon him by the King of Spain.

URUGUAY.

IRRIGATION IN THE UNITED STATES.—Under the auspices of the engineering school of the university, Dr. Raúl Costemalle has been giving a series of lectures in Montevideo on irrigation works in the United States, where he spent some time studying the various projects carried through by the United States Reclamation Service. The lectures were received with great interest.

VENEZUELA.

COMMISSION OF SWISS EXPERTS.—In accordance with the articles of the Colombian-Venezuelan Convention of boundary limits and demarcation between the two countries, each of the two sections of the commission of Swiss experts must be accompanied by Venezuelan and Colombian commissions. The President of Venezuela has appointed to accompany the first section a chief engineer, an assistant engineer, a lawyer, and a telegraph operator; and for the second section similar Venezuelan experts and also a physician.

MINISTER TO PERU AND BOLIVIA.—Sr. N. Veloz Goiticoa, who has for years been engaged in the diplomatic service, and who was at one time secretary of the Bureau of American Republics (now the Pan American Union), has been appointed by his Government envoy extraordinary and minister plenipotentiary to the Governments of Bolivia and Peru. During his long public career Sr. Goiticoa has occupied important posts, having been at various times minister of foreign relations; minister of promotion; diplomatic representative to Germany, Belgium, Holland, the United States, and Colombia; delegate to the First Pan American Sanitation Congress; delegate to the International Artistic and Literary Convention in Berlin; delegate to the Second Pan American Scientific Congress in Washington, and to various other important assemblies. He was one of the founders of the Inter-American High Commission; a member of the American Academy of Political and Social Sciences; of the Society of Science, Art, and Letters of London, and of the Academies of Jurisprudence and of History of Colombia.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO SEPTEMBER 25, 1922.

Subject.	Date.	Author.
ARGENTINA.		
Annual report of Petroleo de Challacó, Limitada, year ended Apr. 30, 1922.	July 11	W. Henry Robertson, consul general at Buenos Aires.
Exports of cereals from Jan. 1 to July 13, 1922.	July 17	Do.
Authorized sale of Central Railway of Chubut to Argentine Government.	July 19	Do.
Cattle census of the Province of Entre Rios.	July 24	Do.
Budget of the Argentine State railways.	July 25	Do.
Proposed provincial loans.	Aug. 1	Wilbert L. Bonney, consul at Rosario.
Export tax for the month of August, 1922.	Aug. 5	W. Henry Robertson.
BRAZIL.		
Organization of shipping company in Pernambuco.	July 20	C. R. Cameron, consul at Pernambuco.
Imports of automobiles in 1921.	July 21	Alphonse Gaulin, consul general at Rio de Janeiro.
Sugar exportation during 1921.	July 24	C. R. Cameron.
Improved business conditions in Bahia.	..do.	Thos. H. Bevan, consul at Bahia.
Crop conditions.	July 25	A. Gaulin.
Coal imports at Rio de Janeiro for first six months of 1920, 1921, and 1922.	July 26	Do.
Gold mining in Brazil.	July 29	Do.
Automobiles and cycles in Rio de Janeiro.	July 31	Do.
Flowering of the 1923-24 Sao Paulo coffee crop.	..do.	Herndon W. Goforth, vice consul at Santos.
Brazilian cotton exports for 1921.	Aug. 1	A. Gaulin.
"Commercio Exterior do Brazil," 1920-1921.	Aug. 3	Do.
Gas illumination.	Aug. 4	E. M. Lawton, consul at Sao Paulo.
Rubber statistics for July, 1922.	Aug. 7	Geo. H. Pickerell, consul at Para.
Registration and use of automotive vehicles.	Aug. 10	Do.
Imports and exports of port of Para for six months ended June 30, 1922.	Aug. 11	Do.
Shipping movement at Rio de Janeiro, July, 1922.	Aug. 17	A. Gaulin.
Hotel accommodations at Santos.	Aug. 18	Herndon W. Goforth.
Commerce through the port of Santos, January, February, and March, 1922.	Aug. 21	Do.
Coffee report.	Aug. 22	Do.
Coal imports at Rio de Janeiro, 7 months of 1922.	..do.	A. Gaulin.
CHILE.		
Improvements in Arica.	June 24	Egmont C. von Tresckow, consul at Arica.
Electric current and central power station at San Felipe.	July 21	C. F. Deichman, consul general at Valparaiso.
Electric current and central power station at Cruz Grande.	July 25	Do.
COLOMBIA.		
New Colombian insurance law opposed.	July 21	Maurice L. Stafford, consul at Barranquilla.
Foreign trade and shipping for first half year of 1922.	July 23	Leroy R. Sawyer, consul at Santa Maria.
Magdalena river transportation.	Aug. 1	Maurice L. Stafford.
July report on commerce and industries.	Aug. 11	Do.
Commerce and industries for July, general survey.	Aug. 7	E. C. Soule, consul at Cartagena.
Experiments with Eri silk worm in Colombia.	Aug. 14	Do.
COSTA RICA.		
Costa Rican budget for 1922.	July 26	Henry S. Waterman, consul at San Jose.
Sisal or Cabuya fiber in Costa Rica.	July 31	Do.
July report on commerce and industries.	Aug. 2	Do.
Population of Costa Rica, Dec. 31, 1921.	Aug. 22	Do.

Reports received to September 25, 1922—Continued.

Subject.	Date.	Author.
CUBA.		
Powers of attorney.....	1922, July 25	Charles Forman, consul at Nueva Gerona.
Movement of sugar from ports of Matanzas and Cardenas from July 11 to 31, 1922.....	Aug. 7	James V. Whitfield, vice consul at Matanzas.
Cost of protesting drafts.....	Aug. 10	Charles Bailey Hurst, consul general at Habana.
The market for work clothing.....	Aug. 11	Do.
Through electric train service between Matanzas and Habana.....	Aug. 26	James V. Whitfield.
Proposed Cuban industry for flour and starch.....	..do....	Frank Bohr, consul at Cienfuegos.
ECUADOR.		
First national congress of agriculture, Aug. 20, 1922.....	Aug. 12	W. W. Morse, vice consul at Guayaquil.
August report on commerce and industries.....	Aug. 18	Do.
GUATEMALA.		
Results of the 1921 census of Guatemala.....	July 31	Arthur C. Frost, consul at Guatemala City.
Railway statistics of Guatemala.....	Aug. 3	Do.
Report on agricultural extension work and home economics.....	Aug. 26	Do.
Postal receipts, January to June, 1922.....	Aug. 30	Do.
HAITI.		
Proposed irrigation work in Haiti.....	July 27	Damon C. Woods, consul at Cape Haitien.
The sugar industry.....	Aug. 16	Do.
Report on Haitian cacao.....	Aug. 29	Do.
Coffee: Its cultivation and preparation for shipment.....	Sept. 9	Robert Dudley Longyear, vice consul at Port au Prince.
Cotton-growing industry.....	..do....	Do.
HONDURAS.		
Vital statistics for Honduras.....	July 18	Robert I. Keiser, consul at Tegucigalpa.
Hennequen industry in Honduras.....	July 25	Do.
Shortage of foodstuffs.....	July 29	Do.
MEXICO.		
Exports through the port of Puerto Mexico, 1920 and 1921.....	Aug. 7	George E. Seltzer, vice consul at Salina Cruz.
Fiber industry of San Luis Potosi.....	Aug. 10	Walter F. Boyle, consul at San Luis Potosi.
Report on coffee crop.....	Sept. 7	Willis A. Myers, vice consul at Veracruz.
PANAMA.		
Iron and steel industry.....	July 24	George Orr, consul at Panama City.
June report on commerce and industries.....	July 25	Do.
SALVADOR.		
Decree establishing a tax on coffee exported.....	July 28	Lynn W. Franklin, vice consul at San Salvador.
Reform to second number of art 988 of the civil code.....	July 31	Do.
Movement of Salvadoran paper currency first semester of 1922.....	Aug. 11	Do.
URUGUAY.		
Area, population, vital statistics.....	June 28	David J. D. Myers, consul at Montevideo.
Contractors' requirements in Uruguay.....	July 17	Do.
Electric current and central power stations.....	July 23	Do.
June report on commerce and industries.....	July 25	Do.
VENEZUELA.		
Market for manufactures of rubber.....	Aug. 3	Thomas W. Voetter, consul at Caracas.
Coffee shipments during June and July, 1922.....	Aug. 7	John O. Saunders, consul at Maracaibo.
New customs tariff classification.....	Aug. 8	Thomas W. Voetter.
Declared exports to the United States from La Guaira, July, 1922.....	Aug. 12	S. J. Fletcher, vice consul at La Guaira.
Loss of crops through drought in Venezuela.....	Aug. 16	Thomas W. Voetter.
Import and export statistics, calendar year 1921.....	Aug. 17	S. J. Fletcher.
Exports of coffee and cacao from La Guaira, Jan. 1 to June 30, 1922.....	Aug. 24	Do.

BOOK NOTES

PUBLICATIONS ADDED TO THE COLUMBUS MEMORIAL LIBRARY DURING JUNE, 1922.

ARGENTINE REPUBLIC.

- Apuntes geológicos sobre los hallazgos de carbón al sur del Lago Nahuel Huapi. Por el Dr. Juan Rassmuss. Buenos Aires, Talleres Gráf. del Ministerio de Agricultura de la Nación, 1922. maps. 21 p. 4°.
- Datos estadísticos y pronósticos de las cosechas de cereales . . . Publicación oficial. Buenos Aires, Talleres Gráficos del Ministerio de Agricultura de la Nación, 1922. 16 p. 8°.
- Estadística de la provincia por partidos. Entrega núm.4. Dirección general de estadística y departamento del trabajo de la provincia de Buenos Aires. La Plata Taller de Impresiones Oficiales, 1922. p. 197-256. 4°.
- Estudios geológicos en el Valle Superior del Río Negro. Por el Dr. Anselmo Windhausen. Buenos Aires, Talleres Gráf. del Ministerio de Agricultura de la Nación, 1922. maps, diagrs. 89 p. 4°.
- José Ingenieros y el porvenir de la filosofía. 2.^a edición. [Por] Julio Endara. Buenos Aires, Agencia General de Librería, no date. 100, (1) p. 8°.
- Línea de frontera con Chile. Coordenadas geográficas de los hitos erigidos sobre la misma. Datos Argentinos 1917-1918. 492 hitos. Ministerio de Relaciones Exteriores y Culto, Buenos Aires. 1919. 20 p. 8 maps. 4°.
- Memoria de la cámara de defensa comercial. Año 1921. Rosario, Imprenta J. Sorrequieta & Cia. 1922. tables. 144 p. 8°.
- Memoria de la Dirección General de Minas, Geología e Hidrología correspondiente al año 1920. Buenos Aires, Talleres Gráficos del Ministerio de Agricultura de la Nación 1921. maps. pls. 169 p. 4°.
- Observaciones geológicas en el Gran Bajo de San Julián y sus alrededores (Territorio de Santa Cruz). Estudios efectuados con el objeto de proveer agua potable al Puerto de San Julian. Por el Dr. Ricardo Wichmann. Buenos Aires, Talleres Gráf. del Ministerio de Agricultura de la Nación, 1922. maps. pls. 34 p. 4°.
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BOLIVIA.

- Plan de hacienda municipal. Ordenanzas de reformas económico—administrativas. [Por] Jorge Palenque. Oruro, Noviembre de 1921. Tip. Comercial. 113 p. 12°.

BRAZIL.

- Boletim annual de 1919. Anno VIII. Oficinas Graphicas da Escola de Engenharia de Porto Alegre, 1921. maps. 58 p. 4°.
- Boletim de normas. Observações meteorologicas feitas no ex-observatorio Nacional, ho jo Instituto Central do Rio de Janeiro, e nas estações da rede Nacional. [Rio de Janeiro] Oficinas Graphicas da Escola de Aprendizes Artífices de Campos, 1922. 66 p. 4°.
- Brazilian cotton. Being the report of the journey of the international cotton mission through the cotton states of São Paulo, Minas Geraes, Bahia, Alagoas, Sergipe, Pernambuco, Parahyba, Rio Grande do Norte. By Arno S. Pearse, general secretary of the International Federation of Master Cotton Spinners' and Manufacturers' Associations. Manchester, March to September, 1921. front. illus. 231, xli p. map. 8°.

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Prospecto do collegio Americano baptista. Fundado em 1906. . . . Anuncios para 1922. Recife-Pernambuco 1922. pls. 67, v, (2) p. 8°.

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Informe del secretario de gobierno al gobernador de Boyaca, 1922. Tunja, Imprenta del Departamento, 1922. 15, 87 p. 4°.

Informe que el Director General de Instrucción Pública del Departamento de Nariño, rinde al señor Gobernador 1922. Pasto, Imprenta del Departamento, 1922. 45 p. 8°.

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COSTA RICA.

Costa Rica guide for tourists. Complete pocket edition. By Ricardo Villafranca Carazo. San José, Imprenta Nacional, 1921. illus. 124, (22) p. 12°.

Documentos relativos a las reclamaciones del Royal Bank of Canada y de John M. Armory & Son, amparadas por el Gobierno de Su Majestad Británica y presentadas al gobierno por la Legación Británica acreditada en la República. Ministerio de Relaciones Exteriores. San Jose, Imprenta Nacional, 1922. 215 p. 8°.

CUBA.

Import and export schedules of Cuba. Washington, Bureau of foreign and domestic commerce, 1922. 19 p. 8°. (Miscellaneous series No. 110.)

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Report on economic and commercial conditions in the Dominican Republic. By Mr. C. K. Ledger . . . and the republic of Haiti. By Mr. Edmund D. Watt. . . . London, Printed and published by His Majesty's Stationery Office, 1922. front. map. 59 p. 8°.

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Address on the Republic of Haiti of to-day. By Carl Kelsey . . . with an introduction by Dr. Thomas E. Green. Delivered before the Society of the Sons of the Revolution in the District of Columbia. Printed for the society, 1922. 35 p. 8°.

Report of the fifth fiscal period Haitian customs receivership. Fiscal year October 1, 1920, to September 30, 1921. Together with a summary of commerce for fiscal year. Submitted to the Honorable Secretary of State for Finance and Commerce, Republic of Haiti, and to the Bureau of Insular Affairs, War Department, United States of America by the General Receiver of Haitian Customs. Washington, 1922. 38 p. 8°.

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Fortieth annual report, 1920. New York and Honduras Rosario Mining Company. New York, January 1, 1921. 50 p. 8°.

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MEXICO.

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Código del trabajo del estado de Yucatan. (Mexico). Decreto número 386. Año de 1918. Mérida de Yucatan, Imprenta "La Azteca," 1918. 67 p. 12°.

Código de trabajo. Edición dedicada por el gobierno del E. de Puebla al C. Gral. Alvaro Obregon, presidente de los EE. UU. Mexicanos. Puebla, Diciembre de 1921. front. port. 110 p. 8°.

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Constitución política del Estado de Jalisco. Firmada el día 8 de julio de 1917 y promulgada por bando solemne el día 18 del mismo y año según decreto del día 11. Edición oficial. Guadalajara, Jal. Tip. Escuela de Artes y Oficios del Estado, 1917. 23, (1) p. 8°.

Constitución política del Estado de Nayarit. Promulgada el día 5 de febrero de 1918. Tepic. Nay. Mex. Imprenta del Gobierno del Estado, 1918. 35 p. 8°.

Constitución política del estado de Tamaulipas. Expedida el día 27 de enero y sancionada el 5 de febrero de 1921. Ciudad Victoria, Imprenta del Gobierno del Estado, 1921. 79 p. 12°.

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- Constitución política del Estado libre y soberano de México y decretos números 3, 4, 5 y 6 reformando algunos artículos de la misma. Toluca, Talleres Gráficos de la E. I. y de A. y O. 1921. 59, iii, 6 p. 8°.
- Constitución política del estado libre y soberano de Michoacán de Ocampo. Morelia, Talleres de la Escuela de Artes, 1920. 49 p. 8°.
- Constitución política del estado L. y S. de Puebla. Expedida el 8 de septiembre de 1917 y promulgada el 15 del mismo mes. Edición oficial Pueblo, Imp. "La Enseñanza Objetiva," 1917. 44, (3) p. 8°.
- Constitución política del estado libre y soberano de San Luis Potosí. Decretada el 5 de octubre de 1917 y sancionada el 8 del mismo mes y año. San Luis Potosí, Talleres Gráficos de la Escuela Industrial "Benito Juárez," 1921. 32 p. 8°.
- Constitución política del estado libre y soberano de Sonora expedida el 15 de septiembre de 1917. Reforma la de 1° de noviembre de 1872. Edición oficial. Hermosillo, Imprenta del Gobierno del Estado, 1917. 31 p. 8°.
- Constitución política del estado L. y S. de Tlaxcala. Promulgada el día 16 de septiembre de 1918. Tlaxcala, Imprenta del Gobierno del Estado, [1918]. 43 p. 8°.
- Constitución política del estado libre y soberano de Veracruz-Llave y sus reformas. Edición oficial. Jalapa, Mex. Oficina Tip. del Gobierno del Estado, 1921. 59 p. 8°.
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- Instrucciones para defenderse de la fiebre amarilla e impedir la propagación de esa enfermedad. Aprobadas por el Departamento de Salubridad Pública. México, 1922. illus. 13 p. 8°.
- La "Chara Foetida" A. Br. y las larvas de "Estegomyia, culex y anopheles." Por el Dr. Arturo Caballero. Departamento de Salubridad Pública. México, Imprenta Victoria, S. A. 1922. 12 p. 8°.
- Ley del trabajo y de la previsión social. Promulgada en el decreto núm. 166, por la xxviii legislatura en año de 1920. Culiacán, Sinaloa, Imprenta, Enc. y Rayados del Gobierno del Estado, [1920]. 37 p. 8°.
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(To be continued.)

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ment of Honduras in Washington for more than four years. His appointment here had been the culmination of a long career of distinguished public service at home and abroad. He had occupied positions of the first importance in three successive administrations in his own country, and had exercised a notable influence, not only upon the course of events in Honduras but in the affairs of Central America. Of his career here in Washington I do not need to speak. You all knew him, and you have all known of his work toward the cultivation of closer relations and a more complete understanding between the American Republics. Señor López Gutierrez was more than a statesman and a diplomat. He was a man of unusually broad culture. His extensive travels, not only on the American Continent but in Europe, had given him an unusually wide acquaintance with men and conditions. He was a close student of international relations and he had devoted much thought to the social problems which confront the world to-day, particularly as to the bearing of these problems upon the interests of his own country. Many of you are, no doubt, familiar with his writings on certain phases of the recent war.

The loss which Honduras has suffered will be profoundly mourned, not only by Señor López Gutierrez's own countrymen, but by his colleagues here in Washington, and by the people of the other Central American Republics.

The Acting Secretary of the United States was followed by His Excellency the Ambassador of Chile, Sr. Don Beltrán Mathieu, who delivered the following eloquent tribute to his missing colleague:

The fact that we are assembled in special session to express our sorrow, and at the same time, to honor the memory of our colleague, His Excellency Señor Don J. Antonio López Gutierrez, is a manifestation of the grief which this great loss has caused us, a sentiment which we desire to transmit to his Government and to his distinguished family.

A long and useful life, such as that of our illustrious colleague, consecrated almost entirely to the service of his country, is a beautiful example, crowned, as it were, by the fact that he died while in the midst of the accomplishment of his work.

We who are here to-day represent different sections of the American Continent, but the Pan American Union, of which we form a part, places our efforts at the service of the broadest interests and progress of the entire continent. His Excellency Señor López Gutierrez was an enthusiastic and efficient collaborator in furthering the idea of Pan Americanism, and it is but fitting that his colleagues should assemble to pay tribute to his great service.

In order to give more definite expression to these sentiments, I take the liberty to propose the following resolution:

The governing board of the Pan American Union, having learned of the death of His Excellency Señor Don J. Antonio López Gutierrez, Envoy Extraordinary and Minister Plenipotentiary of Honduras, at a special session held at the Pan American Union on Saturday, November 4, 1922, at 12 o'clock, adopts the following resolution:

(1) To record on the minutes of this meeting the deep sentiments of sorrow felt by the members of the governing board at the loss of their distinguished colleague.

(2) To transmit to His Excellency the Minister of Foreign Affairs of Honduras and to the family of the deceased a copy of the minutes of this meeting.

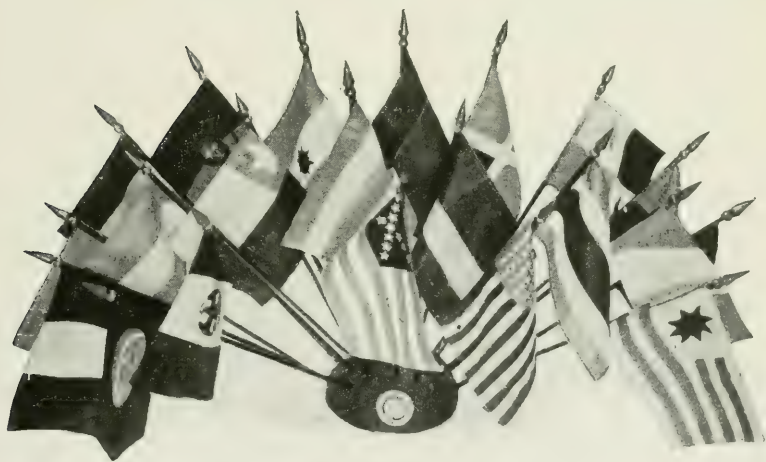
(3) To send a suitable wreath in the name of the governing board of the Pan American Union.

Señor López Gutierrez will be mourned by a wide circle of friends who will remember him not only as the distinguished diplomat who so ably represented Honduras in this and other countries, but as a profound thinker, a scholar of great erudition, a faithful and devoted

friend, and an example of all that is best and highest in Pan American ideals. He is survived by his widow, Doña Josefina Ulloa de López, two daughters, and a son.

As the BULLETIN goes to press it may be added that the funeral, the arrangements for which have been in the hands of the State Department, will take place on November 11, armistice day. A squadron of the Third United States Cavalry will escort the funeral party from the late home of the deceased diplomat to St. Patrick's Church, where a solemn requiem mass will be sung under the direction of Mgr. Thomas, which will be attended by the President of the United States, in person, the members of the Cabinet and other high officials of the American Government, together with the members of the diplomatic corps and a host of other distinguished personages.

At the conclusion of the religious services, the cavalry will escort the body to the Washington Navy Yard, whence it will be placed on board the naval yacht *Sylph* to be taken to Hampton Roads, where it will be transferred, finally, to the U. S. destroyer *Shawmut* for transportation to Honduras. On arrival at Amapala, the funeral party will be met by President López, brother of the late minister, and other high officials of the Honduran Government, and escorted to the place of burial.



RAILWAY TRANSPORTATION IN SOUTH AMERICA

By G. H. BURNHAM,

Clark University, Worcester, Massachusetts.

OF THE present-day methods of transportation in South America, the railroad and the river steamer, play the most important part by far in the economic life of that continent.

The former of these agencies of transportation, which we shall consider in this article, has reached its greatest development on the South American continent in Argentina, where, in a span of 65 years, approximately, 22,500 miles of railroad have been built.

The early history of the various lines which go to make up this large mileage contain the names of William Wheelwright, John Clark and his brother Matthew, and many other intrepid Americans. These men braved many a difficult situation, overcame seemingly superhuman obstacles before inducing foreign capitalists to become interested in their railway enterprises. Thus to their courage and foresight can the present great Argentine railway system be attributed.

The principal focus of this railway system is, of course, the city of Buenos Aires, the leading port of the Republic. Many lines, however, converge at Rosario, also a great meat and grain shipping port, and at Bahía Blanca, a center of the wool and wheat trade.

Of the various Argentine railroads that converge at Buenos Aires, one of the best known is the Central Argentine Railway. This line extends northward and westward from Buenos Aires to the city of Tucumán, tapping the provinces of Buenos Aires, Santa Fe, Santiago del Estero, and Tucumán. The principal freight traffic of the Central consists of cereals, but sugar, timber, live stock, wool, hides, and hay are also hauled in considerable quantities.

Stretching to the south and west of Buenos Aires are the lines of the Buenos Aires Great Southern Railway. Since upward of 90 per cent of its total mileage is found in rich agricultural territory, its freight tonnage in live stock and agricultural products is very great. This huge tonnage is handled through the ports of Buenos Aires, La Plata, Bahía Blanca, and Ingeniero White, at all of which extensive freight terminals are maintained. The passenger traffic on the Great Southern is also very heavy, between 25 and 30 million people being carried every year.



Photo by H. G. Olds, Buenos Aires.

THREE OF THE MODERN RAILWAY STATIONS IN BUENOS AIRES.

Upper: The Retiro Station of the Argentine Central Railway. Center: The "Once de Septiembre" Station of the Buenos Aires Western Railway. Lower: Station of the Great Southern Railway of Argentina.

The most widely known, although not the most important of the railways of Argentina, is the Buenos Aires Pacific. This company has been the most adventurous and ambitious of the Argentine railways and, as a result, operates the principal units of the only transcontinental line in South America. Incorporated in 1882 for the purpose of linking the Atlantic with the Pacific, this company started out to accomplish its task by acquiring existing lines and building others. The story of its growth, which is full of adventure and daring, forms in itself a book, and hence is too long to be repeated here.

Among the various feats which had to be accomplished in putting this plan of an ocean-to-ocean railway into execution was the tunneling of the Andes. Only after many years of striving was this stupendous task accomplished and the railheads of the "Pacific" joined with those of the Chilean Transandine Railway. Finally opened to transcontinental travel in 1910, this line, although often blocked by snow during the winter months, is to-day playing a rather important part in the economic life of both Chile and Argentina.

Besides its transcontinental holdings, the Buenos Aires & Pacific Co. owns or controls other important Argentine lines. By means of these lines this system taps rich agricultural and grazing lands in Southwestern Argentine, the products of which are handled through this company's tidewater terminal at Bahía Blanca. Another important extension of the Pacific is known as the Patagonas Extension. This line extends southward from Bahía Blanca to Carmen de Patagonas, 167 miles, at the mouth of the Río Negro. Land is being irrigated along this division by means of canals which bring water from the Colorado River, and the "Pacific" is making endeavors to attract colonists to this district.

Another important line in Argentina is the Buenos Aires Western Railway. This line extends westward from Buenos Aires into the districts of Pampa and San Luis, and it carries every year large tonnages of the products of the farmers in this region to its tidewater terminal in Buenos Aires.

Among the railway systems serving the great expanse of territory lying to the north and northwest of Buenos Aires between the Paraná River and the Andes Mountains may be mentioned the Córdoba Central Railway. This railway is destined to play an important part in the economic life of the territory that it serves, in view of the fact that it has been designated as one of the links in the proposed international railway between Argentina and Bolivia. This line, when completed, will form a direct through system of similar gauge between Buenos Aires on the south and the Bolivian cities of La Paz, Oruro, and Uyuni on the north, and is bound to be of material assistance in the future development of both Argentina and Bolivia.

Two other Argentine railways—the Entre Rios and the Argentine Northeastern—form with their car ferries important links in the through line between Buenos Aires and Asuncion, the capital of Paraguay. Service between these cities has been maintained *via* these lines and their connections during the past few years.

While all of the Argentine railways thus far mentioned have been built by British capital, there are some lines in the Republic which are under French domination and still other lines which are controlled entirely by the Argentine Government. Of the French-owned lines, the three most important are the Province of Santa Fe Railway, the Province of Buenos Aires Railway, and the Rosario & Puerto Belgrano Railway. These lines are all well built and well equipped to handle the business which comes their way.

The Government-owned lines have been constructed primarily to open for settlement tracts of outlying country, and have thus made possible the development of large areas of extremely fertile territory. The scheme of railway development mapped out by the Government thus becomes a thoroughly comprehensive one and when completed will bring western and southern Patagonia and similar remote sections of the Republic into rail communication with the capital and other important centers. The principal Government-owned lines in operation, or under construction, are the Central Northern Railway and the North of Argentina Railway in the northwestern part of the Republic, the Formosa and Embarción Railway in the Provinces of Formosa and Chaco, the Diamante-Curuza line in the Entre-Ríos Province, and the Patagonian State lines which are being built on the vast plains of that district.

BRAZIL.

A look at the map of Brazil shows us that with the exception of the Madeira-Mamoré Railway and a few other scattered lines the railroads are all centered in the eastern part of the country, radiating from the principal coastwise cities and towns.

Of the present Brazilian railways, the Central of Brazil is one of the most interesting and also one of the most important. This railway forms a network of lines extending from Rio de Janeiro to São Paulo, Bello Horizonte, and a number of other points. Plans are also being made to extend the line northward from Rio through the heart of the Republic to Para, a step which will do much to develop the northern and central portions of that vast country. Since 1866 this line has been operated by the Federal Government.

Probably the most successful among the Brazilian roads is the São Paulo Railway. This line forms the natural means of transport to and from the sea of most of the exports and imports for the State of São Paulo. So great is this traffic that the São Paulo Railways



THE CURITYBA-PARANAGUÁ RAILROAD, BRAZIL.

main line normally produces more revenue per mile than any other railroad in the Western Hemisphere and earns annually very substantial profits. Enjoying as it does a monopoly of the traffic between São Paulo and Santos, this railway annually carries two-thirds of the world's supply of coffee. This railroad to-day with all its branches is only 134 miles in length, but it is one of the best-maintained properties in the Americas and its roadbed, constructed in the face of enormous difficulties, stands as an everlasting monument to the engineering profession.

The Leopoldina Railway traverses the Provinces of Rio, Minas Geraes, and Espirito Santo. Four rugged mountain peaks are crossed by its main line, and many spectacular engineering feats were performed by its builders. The future of this road looks very bright, because it traverses a very rich and rapidly growing section of this vast Republic.

The port of Pernambuco is the central terminus of a network of railway lines which is called the Great Western of Brazil Railway. These lines extend northward from Pernambuco along the coast and also into the interior, crossing in their courses the States of Pernambuco, Alagoas, Parahyba, and Rio Grande do Norte.

The Brazil Railway, an Anglo-American enterprise, was incorporated in Maine, U. S. A., in 1906. This company was given a very broad charter, which allowed it not only to acquire railways and concessions for railways but also to engage in lumbering, cattle raising, and other pursuits. This corporation upon entering the South America transportation field acquired control of four railways which at present practically make up the system that it operates directly—the Sorocabana, São Paulo—Rio Grande, Paraná, and Auxiliaire Railways. Besides these directly operated lines, this company controls or has large interests in several other important transportation companies. Among these are the Paulista Railway, the Mogyana Railway, and the Madeira-Mamoré Railway.

Of all the lines which we have just mentioned, the Madeira-Mamoré Railway is probably best known. Located far in the interior of South America, this railway, which is without a doubt the most isolated line in the world, forms a means of routing traffic around a chain of dangerous rapids which prevent navigation through portions of the Madeira, Mamoré, and Beni Rivers. The route followed by the railway was surveyed a number of years ago by a party of American engineers headed by Col. George Earl Church, a large number of whom lost their lives owing to the climate, the heat and the swampy nature of the country traversed causing great hardships. Following the survey, numerous attempts were made to open this possible trade route. Although several miles of railway were built by the various

companies which carried on these operations, it was not until after more than three decades of striving that the line was finally completed.

At the present time this railway, which is 226 miles long, forms the real key to this back country and is of material assistance in transporting goods to and from that section. Important extensions that will open isolated sections of Bolivia to the rest of the world are planned, and when completed will greatly aid the development of that inland Republic. Thus it comes about that the Madeira-Mamoré Railway is contributing and will continue to contribute much toward the advancement of civilization in central South America.



RAILROAD BRIDGE OVER THE JAGUARAO RIVER, SOUTHERN BRAZIL.

Surely such a road is the real monument to its builders, especially to those hundreds who perished in its construction.

While the roads thus far mentioned go to make up a large share of the railway mileage in Brazil, there are still many other short lines scattered throughout the Republic which are playing a considerable part in the development of this nation's great natural resources. Some of these are British-owned, others are French-owned, while still others are Government enterprises. Rich mining, lumbering, agricultural, and pastoral districts are tapped by these lines—resources which when fully developed will give Brazil a high standing in the economic world.

CHILE.

Chile first placed herself on the railroad map in 1849. In that year William Wheelwright, a citizen of the United States, completed the construction of a line from the port of Caldera to the coal mines at Copiapo. This is the oldest existing line in Latin America and, with the exception of the Demerara Railway in British Guiana, is the oldest line in South America.

Not long after the completion of the Caldera-Copiapo line, Wheelwright, with the help of Allen Campbell, another American, surveyed a through line between Valparaiso and Santiago. This line was completed in 1863 by Henry Meiggs, of Catskill, N. Y.

From these beginnings this system expanded gradually until to-day we have one main line extending from Iquique, 20° south, to Puerto Montt, 42° south, and forming an artery through the central sections of the Republic. From this line, which can be termed the backbone of the Chilean transportation system, railroads radiate westward to almost every port and seacoast town, or eastward to reach some important center of mining or agricultural wealth.

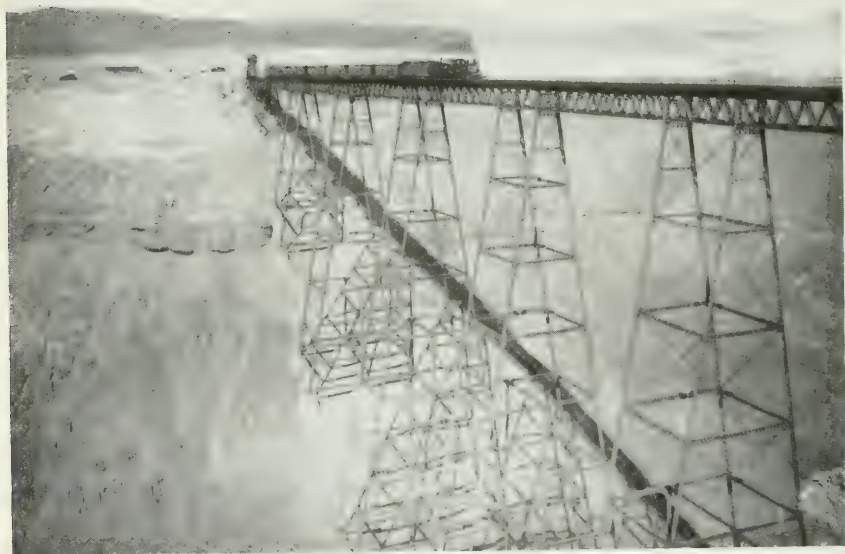
Among these various railways the Central system, a Government-owned line, is the largest and most important. Besides controlling the Valparaiso-Santiago line, this system includes and operates important extensions which reach southward from Santiago through the rich Central Valley to Valdivia, Concepcion, and Puerto Montt. The gauge of this line is 5 feet 6 inches throughout. At Los Andes this line makes connections with the Chilean Transandine Railway and thus forms an important link in the through route between Buenos Aires and Valparaiso, while at Cabilda it meets the railheads of the Longitudinal Railway.

This latter company operates or is constructing the State lines northward from Calbilda. This railway, a meter gauge road, will eventually be carried northward as far as Arica. It has been constructed primarily for strategic reasons and secondarily to develop certain important sections of the country and connect various cities and towns in the interior. At the present time through traffic on this line is not very extensive owing to the strong competition of the steamers which ply along the coast.

Of the many other Government railway enterprises, the Arica-La Paz Railway—an international line to Bolivia—is the most important. This railway, which is 248 miles in length, forms the shortest route from La Paz to the coast. Of its total length, 129 miles are in Chile. Great engineering difficulties confronted its builders everywhere. In the Chilean section six tunnels had to be bored, while along the entire route 5,500,000 cubic meters of earthwork had to be built before the rails could be laid. Along one section of the line



ENTRANCE TO A TUNNEL ON THE TRANSANDEAN RAILROAD, CHILE.



A BRIDGE ON THE ANTOFAGASTA & BOLIVIA RAILWAY.

the rise is sufficiently great to compel the use of 28 miles of rack rail, the longest continuous stretch of the rack system in the world.

This company maintains a semi-weekly passenger service between Arica and La Paz. This service is at present almost completely demoralized owing to insufficient equipment, and the transportation of freight between the points mentioned is practically at a standstill. With the railway practically starving in the midst of plenty, the Chilean Government is taking steps to rehabilitate the property.

Best known and least successful among the privately operated lines in the Republic is the Chilean Trans-Andine Railway, which forms a portion of the only transcontinental line south of the Isthmus of Panama. This line starts at Los Andes, the eastern terminus of a branch of the Central of Chile Railway, and forms a 43-mile link in the 886-mile system from ocean to ocean. That tremendous engineering difficulties were encountered in the building of this line can be attested by the fact that in its entire length there are 118 bridges, 25 tunnels, and about 25 miles of rack rail.

There are many other railway enterprises in Chile, most of which are short lines which have been built for the exploitation of copper, coal, nitrate, or some other natural resource. These lines generally run from some tidewater port to the place inland where the mines or *oficinas* are located. Most important among them are the nitrate railways which link up the various nitrate producing fields in the northern provinces with the seaboard. Practically all of these railways are British-owned and have had highly successful careers.

Of these nitrate-hauling roads, the Antofagasta & Bolivia stands preeminent. This railway operates 820 miles of track and is one of the best paying lines in South America. Striking out from Antofagasta, the main line soon crosses the Longitudinal Railway and, 60 miles inland, reaches the great nitrate belt, through which it extends for over 30 miles. This region is a principal source of traffic for this company, thousands of tons of the nitrate being carried by it each year to the ports of Antofagasta and Mejillones. Besides nitrate, copper and other ores from both Chilean and Bolivian mines are hauled to the seaboard by the "A. & B." in large quantities, all of which aids materially in putting this road on a firm financial basis.

After climbing upward for several thousand feet, the "A. & B." reaches the summit of the divide and begins its descent toward the plateau of Bolivia, in which country it operates several leased lines.

These lines tap the important Bolivian cities of La Paz, Potosí, Oruro, Uyuni, and Cochabamba, and serve as feeders to the main system. By thus connecting this inland country with the Pacific seaboard, the "A. & B." is playing a tremendous part in the economic

development of both Chile and Bolivia and is without a doubt the most important railway in the latter country.

A close second to the Antofagasta lines, however, is the Guaqui-La Paz Railway, which is the property of the Peruvian corporation. This line, although only 60 miles long, gains considerable importance from the fact that it is at present the only railway operating directly into the city of La Paz. It also forms one of the units in the La Paz-Lake Titicaca-Mollendo route to the Pacific and on that account is doing a rather remarkable business.

Outside of the two roads already mentioned and a few shorter lines owned by mining interests, there are no other railways of any account in operation in Bolivia. Large mileages are, however, being constructed in every part of the Republic and other lines have been planned. Among these are the La Quiaca-Tupiza Railway, destined to form a part of the through route between La Paz and Buenos Aires, the La Paz-Yungas Railway, and the Potosí-Sucre Railway. These lines without a doubt will be pushed slowly forward, and the mileage in operation will gradually increase. With this thought in mind, conservative estimators say that if the Bolivian projected program of railway development is carried out that country will in time possess more than 3,000 miles of line.

PERU.

Most of the railway mileage of Peru is at present controlled by the Peruvian Corporation. This company, which came into existence in 1890, was given control of the railways, the mining privileges, and the land grants of the railways of the Republic, for a term of years.

One of the railways which this company took over was the Peruvian Central, which bears the distinction of being the highest and most remarkable line in the world. This railway, which extends from Callao and Lima via Oroya to Huancayo, was begun in 1870 by an American, Henry Meiggs. After leaving Callao the line passes Lima and immediately begins its upward climb—a climb that is remarkable because of the fact that in the short distance of 106 miles an altitude of 15,665 feet is reached. The heavy grades encountered in this wonderful climb were overcome largely by means of “V switches.”

Meiggs, after deciding upon this method of climbing the sierras, leveled off a stretch of embankment to the left of the track and erected a turntable, the plan being to run the train past the turntable uncouple the engine, turn it around and hitch it to the rear of the train. After this has been done the train pulls out in the same direction as it came in but uphill on another track. Sixteen of these

V switches were used by the Central in its climb over the sierras, and five others are also found along various other parts of the line.

Besides these zigzags, there are many other engineering feats to be noted along the route of this railway. These include 61 bridges and 65 tunnels, the building of which helped swell the construction costs to \$200,000 per mile. With all these marvels of engineering,



AN INTERESTING SERIES OF CURVES ON THE PERUVIAN CENTRAL RAILROAD.

the Central stands as a perpetual monument to its builders, 7,500 of whom lost their lives in its construction.

This company is to-day doing a good passenger business, a large share of which is local traffic. Half-hourly train service is maintained between Callao and Lima, while to other near-by points trains are also frequent. For Oroya and stations beyond, a triweekly service is in effect. The freight tonnages transported by this railway are also fairly heavy and consist for the most part of mineral products.

The equipment of the Central is kept in good shape. Most of the locomotives, which are oil burners, are of American construction, as is also a large majority of the passenger and freight cars.

The Southern Railway of Peru is also a product of the genius of Henry Meiggs, having been planned and partly constructed by him and, as in the case of the Peruvian Central, completed by William Thorndike. This line connects the Pacific port of Mollendo with Arequipa, Cuzco, Puno, and other interior points. As already mentioned the Puno branch of this railway forms an important link in the rail and lake route into Bolivia.

Of the smaller lines under the control of the Peruvian Corporation, the Trujillo Railway is one of the most important. This line extends from the port of Salaverry *via* Trujillo and Chocope to Ascope, and is doing a large passenger and freight business.

The Paita-Piura Railway is a great cotton-carrying road, the region in which it is located being highly suitable for the growth of that product. Of late years an extension of this line across the Cordilleras to some point on the navigable waters of the Maranhão, a tributary of the Amazon, has been talked of, but as yet these plans have not been carried into execution.

Running inland from the ports of Ica, Pisco, Pacasmayo, and Chimbote are several small lines which are also under the control of the Peruvian Corporation. These lines have been of material assistance in the development of Peru, and with the completion of certain extensions are bound to become doubly so.

Probably the most important of the various lines not under the control of the Peruvian Corporation is the Cerro de Pasco Railway, owned by a mining corporation of a like name. This railway runs on the Andean plateau from Oroya, the junction with the Peruvian Central, to Junín, La Fundación, Cerro de Pasco, and Goyllarisquisga. Its total length is 135 miles, and although the extension of this line to Puerta Victoria on the River Ucayali has been projected, so far practically nothing has been done other than making surveys for possible routes.

There are many other private railway enterprises in Peru, most of which extend to mines or plantations. Some of these are classed as common carriers, while others are used merely for private purposes. They, together with the railways already mentioned, help swell the railway mileage of Peru to about 1,800 miles. This mileage is bound to increase, however, as the years go by, for the Republic has recently enacted very liberal laws to encourage railway building.

URUGUAY AND PARAGUAY.

Before going farther north to the other mountain countries let us retrace our steps a bit and take a look at the railways of two countries of lower relief—Uruguay and Paraguay.

The first of these countries has, like Argentina, a relatively flat surface, and hence was early the scene of railway activities. Having

its beginnings in 1865, the railway system of Uruguay has, through the large investments of British capital, grown to such a size that to-day this Republic, in proportion to the area of the country, stands first in railway development in South America.

Of the 1,650 miles of line at present in operation in this Republic, practically 1,000 of them are controlled by one company—the Central Uruguay. This line, operated in four sections, taps rich agricultural and pastoral regions and is destined to a great future. International train service between Montevideo and São Paulo is maintained *via* this route, connections being made with the Brazilian lines at Rivera.

The Midland Uruguay Railway, the Northwestern of Uruguay, the Uruguay East Coast, and the Uruguay Northern are all lines that are operated under Government guarantees. As the country which these railways tap develops, the finances of these companies should straighten out, and, placed on a firm financial basis, they should become potent factors in the development of this Republic.

The Brazil Railway Co., just before its passage into the receiver's hands, had perfected plans for the building of a railway in Uruguay. This line was to be known as the Uruguay Railway and was to extend from San Luis on the Brazilian border to Colonia, situated only 26 miles from Buenos Aires. Recently the rights and property of this company have been purchased by the Uruguayan Government, and it is said that this line, when built, is to form the nucleus of an extensive State-owned railway system. Thus the future of railways and railway building in Uruguay looks very bright indeed.

The history of railway development in the Republic of Paraguay centers around one system—the Paraguay Central Railway. This line, which had its beginnings back in 1859, is a British-controlled corporation and extends from the capital, Asuncion, to Villa Encarnación on the upper Paraná, where connection is made by means of a train ferry with the Argentine system across the river. Through train service *via* this route has been in operation between Asuncion and Buenos Aires since 1913.

Of the 467 miles of railway in Paraguay, the Central operates 232, or about half. The roads which control the remainder of the mileage are, in general, short lines used in the exploitation of the forest, and are not as a rule considered common carriers. As this exploitation of the forest goes on, more and more railways are bound to be built, and already plans are being laid for the construction of a line northwesterly across the Chaco to Belivia. Thus it seems safe to predict that Paraguay will within the next decade have a larger railway mileage than at present.

ECUADOR.

Resuming now our northward journey through the mountain countries, we first visit Ecuador and find that the only important railway in this Republic is the Guayaquil-Quito line. This line, which is about 300 miles in length, is now the property of an American company. Its construction was begun in 1872, but, largely because of the huge natural difficulties which had to be overcome, the line was not completed until 1908.

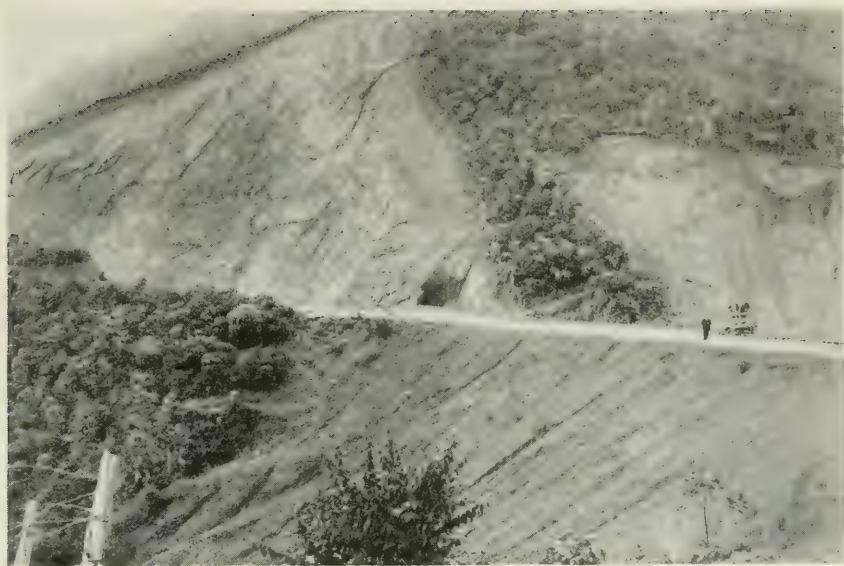
There are at present no other large railways in operation in Ecuador. The Central Railway of Ecuador, an English-owned line, has recently been constructed. This line connects the port of Manta with Santa Ana, 35 miles inland. A French company has partially completed toward Quito a railway from the Pacific port of Bahía de Caraquez. This line will bring the rail distance from tidewater to the capital city down to about 185 miles. Recently, owing to financial difficulties, this railway has been turned over to the Government. These two small railways together have in operation at the present time about 100 miles of track.

COLOMBIA.

There are within the Republic of Colombia to-day not more than 800 miles of operated railway. This mileage is controlled by 16 different companies, the largest of which operates only 149 miles. There is not a single trunk line in the Republic, and the various existing systems simply act as connections between various centers of population and some river or seaport of outlet, or else are the means of routing traffic around rapids or river bars.

Of these various short lines the Antioquia Railway is the oldest, its charter dating as far back as 1874. The terminus of this road is at Puerto Berrío, on the Magdalena River, and the line is at present being carried by slow stages toward Medellín, the capital of the state of Antioquia and the second largest city of Colombia.

As the Magdalena River is not navigable at its mouth, practically all the traffic destined for the interior *via* this waterway is handled by the Barranquilla Railway. This line connects Savanilla, an important port on the Caribbean, with Barranquilla, the port for the Magdalena River. Farther inland, where more falls, rapids, and sandbars are encountered, other lines have been built to overcome these natural barriers of commerce. Among these are the Colombia Railway & Navigation Co.'s line between Cartagena and Calamar; the Dorada Extension Railway between Dorada and Puerto Beltrán; the Colombian National Railway from the port of Girardot to Facatativá.



VIEWS ALONG THE AMAGA RAILROAD, COLOMBIA.

From this latter point the traveler takes the Sabana Railway to Bogotá. Thus it is that only by such alternate links of rail and water communication can the journey between the capital city and the seacoast at present be made.

The Cauca or Pacific Railway Co. operates a line from the Pacific port of Buenaventura, inland to Cali, 103 miles from the ocean. This line taps the rich mineral deposits of the Cauca Valley and seems destined to become a great factor in the economic development of Colombia.

While the above-named roads go to make up most of the railway mileage in Colombia, there are many other short lines which, if space would permit, could be mentioned here. Most of them, however, are in isolated localities and until they are united, further extensions can be made to serve only local purposes.

VENEZUELA.

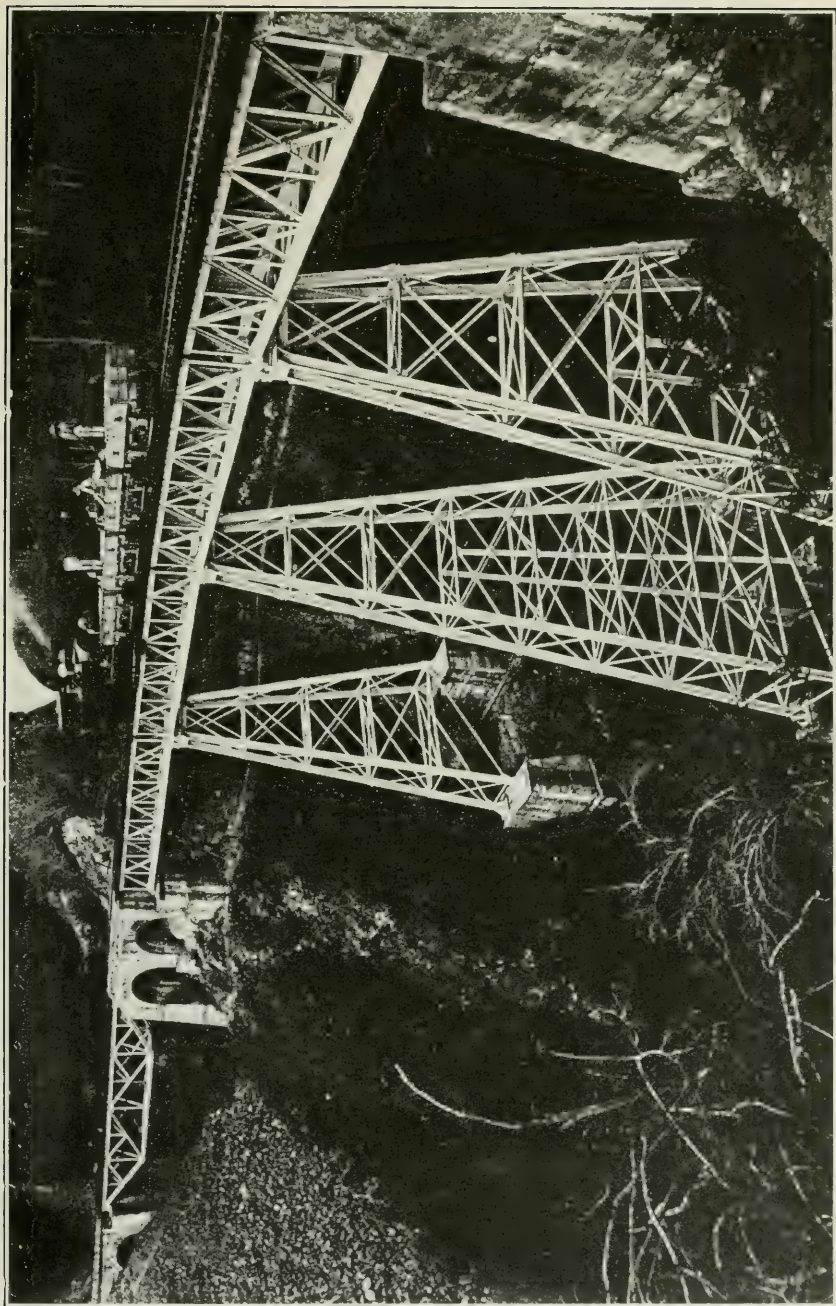
Venezuela, like Colombia, has had a very slow and irregular railway development, there being only about 650 miles of road in operation in that Republic at the present time. This mileage is for the most part controlled by several independent companies whose lines run from various places along the coast back into the interior.

Probably the best known among these railways is the little 22 $\frac{3}{4}$ mile La Guaira & Caracas Line. This railway connects Caracas, the capital city, with La Guaira, the principal Caribbean port. It is a British-owned line and since its completion has been highly successful.

The Great Railway of Venezuela, operating 111 miles of track, extends from Caracas through a rich and beautiful country to Valencia, the latter an important city of upward of 40,000 inhabitants. Another important line having a terminal in Caracas is the Venezuela Central Railway. This line links the capital city with several important towns in the interior and is being extended to Ocumare, the capital of the State of Miranda.

The Bolivar Railway, the oldest line in operation in the Republic, extends from the port of Tucacas to Aroa and Barquisimeto. This railway provides an outlet for the Aroa copper mines, the richest in Venezuela. The Great Railway of Táchira is another important Venezuelan road, which extends from Encontrados on the Catatumbo, a river flowing into Lake Maracaibo, southward to San Felix. It is the principal outlet for the State of Táchira, its capital San Cristobal, and the Colombian department of Santander. The region through which this railway passes is a rich coffee-growing country.

In addition to the above railways there are many shorter lines connecting seaports with the interior towns. Realizing that these lines must be extended, if the country is to grow economically,



A RAILWAY BRIDGE BETWEEN CARACAS AND VALENCIA.

This is typical of many beautiful views along the route in which there are 212 bridges and 86 short tunnels, facts which reflect the difficulties overcome by the constructors of the road.

the Government has recently enacted more liberal laws in regard to railway concessions. Thus has foreign capital been attracted to this country, and already many new extensions have been projected.

BRITISH GUIANA.

British Guiana has two railway lines in operation. One of these is the Demerara Railway, a portion of which was built before 1850 and which, therefore, can lay lawful claim to the title of the "oldest railroad in South America." The total length of this line and its branches is at present 79 miles. The main line extends from Georgetown eastward along the coast to a point opposite New Amsterdam, the second city of importance. The other, owned by Sprostons (Ltd.), runs between Wismar on the Demerara River, some 65 miles above its mouth, to Rockstone, on the Essequibo. It is a meter-gauge line, having a length of about 20 miles, and was built largely for the purpose of exploiting the gold and timber resources of this region.

DUTCH GUIANA.

Dutch Guiana has one railway in operation. This line, known as the Surinam Railway, extends from Paramaribo inland to Dam, a distance of 110 miles. This line has never been able to pay expenses and hence has always been in constant financial difficulties.

FRENCH GUIANA.

In French Guiana there are as yet no railways in operation. They are, however, being talked of as a means of developing the interior, and one will probably be pushed inland from Cayenne in the not too far distant future.

Such is the story of the Iron Trail in South America—a story that is full of interest and excitement, a story that has meant much in the development of the continent.



CHILD WELFARE IN MEXICO

By HELEN BOWYER.

THE YEAR 1921 was in a very special sense a year of grace in Mexico, for it witnessed five great efforts toward child conservation which, if followed up, will constitute an achievement of which the nation may be proud.

The first of these was the *Congreso del Nino* or Child Welfare Convention called in response to the initiative of Señor Felix Palavicini, publisher of *El Universal*, Mexico's leading daily. It met in January and drew to itself a large proportion of the intellectuals of the capital. It went very earnestly to work to discuss those problems which the men and women of the Republic must face in behalf of its children if the nation is ever to achieve those ideals for which the revolution was fought.

Mexico has as yet no body of trained social workers in the sense in which that term is used in the United States. The men and women who come closest to the lives and needs of the people are the physicians and teachers, and it was natural that the shaping of this conference should fall into their hands. And perhaps it was just as well that it so happened, for the first problems that must be met, alike in city and town, in seaport and in mountain hamlet, are the problems of hygiene and the education of the masses.

The *Congreso* was much concerned with the subject of heredity—as why would it not be! The Mexico of to-day stands upon the ruins of an ancient civilization whose stupendousness becomes more and more indisputable as the excavation of the pyramids and temples and buried towns goes on. And the descendants of the races who left these amazing monuments of their greatness still form the bulk of the population of the land, an apathetic primitive people, huddling together in mud-built huts and scratching the earth with crude wooden ploughs. Why has the light died out among them, as it died in the Land of the Two Rivers and in Egypt and in Greece?

It seemed to the delegates that, granted measures to prevent the debasement of the Indian by any further admixture with the black and yellow races, and laws to check the propagation of the mentally and morally unfit, the supreme task that faced the *Congreso* was the

emancipation of the Mexican woman and her education in the highest possibilities of that rôle which, whether man wills it or not, she must play—co-ancestor of the race and its first and most potent instructor.

Prenatal care of the mother and proper feeding of the babe are matters of tremendous urgency in Mexico, where the death rate under one year rises to frightful figures, variously estimated at 250 to 400 per thousand. On this subject some of the most distinguished physicians of the Republic contributed papers. Another matter treated with the gravity which the situation demands was ophthalmia of the new born, to which over half of the blindness in Mexico is due. Congenital syphilis, children's diseases, and the paramount rôle which the teeth play in childhood also came in for the attention they merit.

The discussion contributed by the teachers was marked by a fearless facing of those racial weaknesses and those defects of the educa-



CHILD WELFARE IN MEXICO.

A night class of working girls whose wages are too low to provide them with sufficient food. Supper is provided by the Department of Education.

tional system which must be eradicated if Mexico is to take that place among the nations to which her material resources and the very real intelligence of her people entitle her. "The habit of action in childhood as a means of combatting our national apathy," and "Freeing the teacher from the tyranny of the municipality" were two contributions along this line. Universal compulsory education, the creation of schools of agriculture throughout the country, the reorganization of the kindergartens, physical and mental examination of children, the undernourished child—these and many other things were treated in thoughtful papers.

The section on child legislation concerned itself, among other things, with orphanage and illegitimacy, both problems of vastly greater scope than in the United States. A pathetic note, the need for which is fortunately largely past in our own civilization, was that

raised on behalf of the child of the wet-nurse. In Mexico it is still a common custom for the women of the upper classes to hire some hard-pressed young mothers of the working class to nurse their babies, wholly callous to the wrong they do the defenseless little creature to whom the breast belongs. It is very seldom that the Mexican woman has sufficient milk for two babies, and in the ignorance of its mother of the most elementary essentials of artificial feeding, the child of the wet-nurse almost always dies.

The delinquent child was the subject of deep concern to the congress, and "our so-called correctional schools" came in for the same drastic treatment which corresponding institutions have been receiving in the United States. The need of special tribunals to deal with child offenders was clearly recognized, and a paper on juvenile courts in the United States read by the one American delegate to the convention aroused the deepest interest.

The proceedings of the *Congreso* and the conclusions to which it came were gathered together in a comprehensive *Memoria*, of which a brief résumé was published for free distribution. Before disbanding, the delegates effected a permanent organization with Señor Palavacini as president, Dr. Francisco Castillo Nájara as secretary, and with committees of other distinguished citizens to watch developments, organize public opinion, and put into effect as much of the program agreed upon as was immediately realizable.

II.

To Señor José Vasconcelos, now national Secretary of Education, belongs the honor of the first attempt to put into practice on a large scale some of the ideals of the *Primer Congreso*. Among the educational institutions under his direction at the time were a number of primary schools with a large attendance of children from the very poorest classes. It was obvious that these children were suffering from malnutrition. There were no public funds from which to feed them and so the Secretary called a meeting of the various faculties of the university and all its dependent schools to devise means whereby the situation could be met. The upshot of the matter was that the teachers decided to finance the work themselves by a regular monthly assessment on their own salaries.

Señor Vasconcelos placed the working out of the experiment in the hands of Señor Roberto Medellín, now chief of the superintendent of instruction. He in turn delegated the immediate responsibility to Señorita Elena Torres. As has already been stated in the BULLETIN, in an incredibly short time kitchens were equipped, delivery wagons acquired, and all arrangements made for serving breakfast to several hundred children, including 60 adolescents in the Commercial School for Girls. The actual serving of the meals began last May.

and so marked has been the improvement in the well-being of the children affected, that at the beginning of the new scholastic year the nutrition work was incorporated as an integral part of the educational program. Since most of the schools in the Federal District passed at the same time under the control of Señor Vasconcelos the scope of the school feeding has been greatly extended and a half million pesos appropriated for the purpose.

III.

The third important activity in behalf of Mexican childhood was carried out by the Federal Department of Public Health, of which Dr. Gabriel M. Malda is chief, and Dr. Alfonso Pruneda general secretary. It took the form of a Baby Week held during the Grand Centennial of the Nation's Independence, celebrated last September.

The ground floor rooms and the *patios* or inner courts of the main



BREAKFAST IN A BOYS' SCHOOL IN A SUBURB OF THE MEXICAN CAPITAL.

building were fitted up with booths, each devoted to some important phase of baby welfare. As this was Mexico's first effort of the sort, most of the charts and posters were handmade for the occasion and their soft rich colors against the gray and tans of the booths, which harmonized so wonderfully with the old stone floors and pillars of the open *patios*, gave an effect of great picturesqueness and beauty.

The first group of exhibits repeated in pictorial form much of the ground covered in more technical fashion by the First *Congreso*. From these the densely packed stream of visitors passed on to the more sociological lay-outs, such as those on poverty, defective housing, and how other countries have organized to safeguard their children. There was also a special booth for fathers and one for mothers. This latter, which was prepared in large part by the National Feminist Organization emphasized especially those aspects

of a mother's life which theoretically lie outside the home but which, in reality, condition it. Street cleaning, the water and the milk supply, wages and unemployment, rent and standards of housing, all the problems of "community housekeeping" were thus brought to the attention of the women of Mexico who, like the women of other lands, will have to take a hand in solving them if they are to be solved at all.

The charts and posters were supplemented by such practical demonstrations as are usually to be found in a similar exposition in the United States. Those on the feeding, bathing, and dressing of the baby were in such demand that they had to be run as almost



A BOOTH IN THE BABY WEEK EXHIBIT, MEXICO CITY.

This exhibit held in September, 1921, aroused great interest. This particular booth told the story of the work done for the babies of New Zealand.

continuous performances. So were the milk tests given by a group of chemists from the department. A specialist in charge of the booth on the care of the eyes gave daily object lessons in his line, while a group of students from the National Dental School took charge of a tooth-brush drill of a dozen small boys and girls symbolically costumed for their parts.

Out on the *Paseo de la Reforma* in front of the department building two large tents were pitched to house the "Little Theater" and the demonstration playground. The former was the scene of four charming kindergarten *fiestas* and three *comedias* or health plays given by the children of three of the city's leading schools. So

much interest did these arouse that the department is getting out a book of just such *comedias* for the use of schools and other juvenile organizations. Twice a day, also, in this tent, *conferencias* or health talks were given by noted physicians.

Playgrounds, in the American sense of the word, are but little known in Mexico, and the swing, sliding boards, teeter and sand box in the other big tent out on the *Paseo* were a revelation of delight to the little Mexicans, who packed it to the number of 3,000 a day.

Every day of Baby Week was marked by some special big demonstration of its own. Especially striking was the *Procesión Infantil*, in which, in a hundred automobiles, the vanguard of Mexico's infants joined their insurgent brethren in the United States in demanding intelligent parents, decent homes, pure water, clean milk and all the other "minimum essentials" which the modern baby has been taught to consider his due. On the *Día de Registro Civil*, hundreds of children were lured into recording the date of their *debut* on earth, and then led on to submit themselves to the further civic duty of getting vaccinated.

There could be no question of the intense interest this exposition aroused. In spite of all the other attractions of the grand centennial, 55,000 visitors thronged the exhibits and demonstrations. Pamphlets and leaflets were distributed by the tens of thousands. A translation of the United States Children's Bureau pamphlet "Prenatal Care," was exhausted before the demand was nearly satisfied and the Metropolitan booklet "The Child" ran it a close second in popular favor. Since the close of the exposition the department has been working out plans for a permanent division of child hygiene.

IV.

Close on the heels of Baby Week came the opening of the American playground. Naturally, on the occasion of Mexico's celebration of her first centennial, all the foreign colonies of the capital wished to give some tangible expression of their sympathy. That of the American colony took the form of a public playground, and surely if the children's angel had guided the committee, no happier gift, no gift fraught with more joyous and far-reaching consequences, could have suggested itself to them.

The *Ayuntamiento*, or city government, handed over to the committee the *Plaza Garibaldi*, a neglected park in a poor quarter of the city. Till then it had been devoted chiefly to the dubious activities of occasional kermesses, but it covered almost a block and was shaded with large *fresno* trees, which in Mexico keep their foliage most of the year. This ground the committee had fenced in and fitted up with the best equipment that could be rushed from the United

States —swings and sliding boards, trapezes and flying rings, courts for baseball, volley ball, and basket ball for the older children, and hammock swings and sand boxes for the babies.

On September 22, in the presence of some 400 members of the colony, the playground was dedicated "To the youth of the capital." H. I. Jacobs, the chairman of the American committee, made the presentation speech, and Alderman Eduardo Mestre accepted the gift in the name of the *Presidente* of the *Ayuntamiento*.

The money raised by the American colony and by the spontaneous generosity of the chambers of commerce of St. Louis, Los Angeles, San Francisco, and Laredo was sufficient to permit the committee to run the playground at its own expense till the end of the year, when it was to be handed over to the management of the *Ayuntamiento*. When, however, the time for the transfer arrived, this municipal body found itself unprepared, in view both of its lack of funds and its inexperience in such matters, to carry out its contract and begged the American committee to continue the existing arrangement.

But the committee's plans for the future of the playground movement in Mexico were too big and too far-reaching to permit of its being left to a handful of foreigners like themselves. Its great design was to lead the Mexican citizenry in the development and support of the work, and out of this design the International Playground Association was born.

The directorate of the new organization is formed of five representatives of every foreign colony in the capital and six Mexicans. The president is Señor Carlos Zetina, senator for the Federal district. All the officers are likewise Mexicans, with the exception of the treasurer and technical adviser, who are Americans.

Membership is open to individuals, firms, clubs, and children. These latter may join for a *peso* a year, and the association hopes that they will join in large numbers. Voluntary cooperative efforts for purposes of public welfare is so new a thing in Mexico that perhaps to train the children in it is as great a service as the Playground Association can render.

The plans of the new president and his coworkers are far-visioned and big. The first and most urgent need is to secure the permanent support of the *Plaza Garibaldi* and, as the *Ayuntamiento* has now undertaken to meet half of that from its own funds, that matter is fairly well settled. But just as rapidly as possible the association wishes to open similar playgrounds in other sections of the city and ultimately to extend its work to every town and village in the Republic.

The director of the *Plaza Garibaldi* is Señor Córdoba, a young Mexican who received his professional training in the United States, and who has succeeded in passing on an astonishing share of it to his

three young assistants. His most remarkable achievement, however, is the enthusiasm of service he has roused in the students of the higher schools of the city. At present he has a volunteer corps of 60 young men and 30 girl leaders, who devote practically all their spare time to assisting in the *Plaza Garibaldi*.

In the first three months of its existence the playground had a total attendance of 72,980 children, and had established a regular play schedule for eight schools, including the National Schools for the blind, deaf, and dumb children. Eighty per cent of all the children of suitable age in these schools have learned to play basket ball, baseball, or volley ball, and one basket-ball team of boys has



A CORNER OF THE AMERICAN PLAYGROUND, MEXICO CITY.

This playground, the gift of the American colony, was dedicated to "The youth of the Capital" on September 22, 1921.

played two games in a tournament of nine teams held at the Y. M. C. A. and won them both.

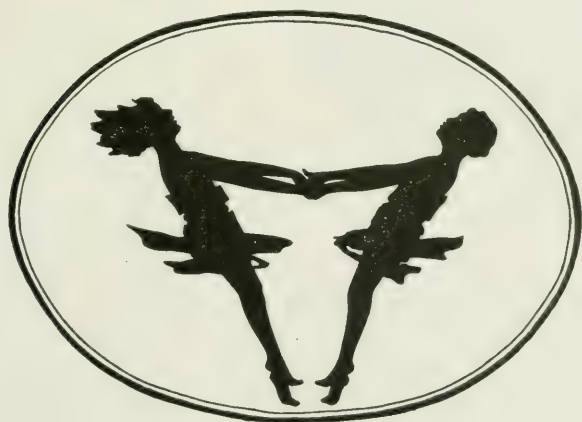
Although the *Plaza* is situated in a poor quarter of the city, there is always about an equal attendance of children of the upper classes. It should be noted that although the difference between classes in Mexico is vastly greater than in the United States, there is no friction. The child who comes in his super six, in care of his hired attendant, has been taught to respect the rights of his barefoot little playmate from the curbstone, to wait his turn at sliding board or swing, and to take his chances generally and stand on his own feet in the vivid and democratic life of the playground. Nothing in all their achievement is quite so dear to the American members of the association as this inculcation of good sportsmanship in the hearts and minds of their young protégés of the *Plaza Garibaldi*.

V.

The one American delegate to the *Primer Congreso del Niño* was Miss Alva Blaffer, a member of the national committee of the Humane Society of the United States. As soon as the congress was over she directed her energies to rousing its members to the immediate need of establishing a similar society in Mexico. Such a society she pointed out would not only be the champion of children and animals against cruelty and neglect, but could take the initiative in agitating for juvenile courts, farm colonies for abandoned children, and other measures advocated by the congress.

The proposition proved a rallying point for many humanitarians who, like Senator Jonas García, Señor Juan León, and Señorita Emy Ibáñez, had each been putting up his lone fight for the abolition of the demoralizing bull ring, the suppression of begging with all the horrible exploitation of childhood which it involves, and for the safeguarding of young girls from the night life of the city. These and other things were written into the *raison d'être* of the *Asociación Mexicana Humanitaria*, whose organization was effected just in time to be included among the achievements of 1921.

Señor Vasconcelos, the national Secretary of Education already referred to, expressed his sense of the importance of the new association by accepting the presidency and, under a man of his ideals, it should contribute much to the general movement for child betterment in Mexico.



A NOTABLE INTERAMERICAN LECTURE COURSE

ALL students of Hispanic culture in the New World and all those interested in that most practical phase of Pan Americanism—the interchange of university and literary lectures—are following with keen interest and pleasure the itinerary of Dr. Alejandro E. Bunge, one of the best known and most brilliant of Argentina's younger economists.

Dr. Bunge reached the United States during the first days of Sep-

tember, after an extended stay in Europe, his lecture tour beginning early in October, his engagements in the Middle West between October 4 and 20 including the University of Notre Dame, Indiana; the State University of Iowa; Washington University, St. Louis; the University of Chicago; Northwestern University; the University of Illinois; and the Spanish American Club at Cleveland.

An eastern itinerary has been arranged for the first half of November which, among others, will include lectures at George Washington University and the Georgetown School of Foreign Service in Washington, D. C.; Goucher College in

Baltimore; the University of Pennsylvania and Temple University in Philadelphia; Clark University in Worcester; Dartmouth College; and Cornell University.

Dr. Bunge, now professor of commerce and statistics at the National University of Buenos Aires, Argentina, and chief statistician of the great international banking firm of Tornquist & Co., is probably the leading Argentine statistical authority, one of that brilliant group of younger educators who are shaping the views and forming the



Courtesy of the Pan-American Magazine.

DR. ALEJANDRO E. BUNGE.

minds of the youth of the great southern Republic. Particularly on subjects related to the social development of Argentina does Dr. Bunge speak with authority.

Among the subjects of lectures offered by Dr. Bunge may be mentioned:

- Production, industries, and transportation in Argentina.
- Banking credit and finance in Argentina.
- Argentine economic development.
- Production, public wealth, industries, and finance of Argentina.
- Argentine economic policy.
- The population of Argentina, its derivation and growth.
- The building industry in Argentina and its future.
- General résumé of Argentina's economic and social development.

It is to be hoped that Dr. Bunge's itineraries will be as crowded as is compatible with the time at his disposal in this country, that the leading universities, colleges, and clubs will take full advantage of this opportunity to compare notes on the subjects named and, at the same time, to form personal contacts with this highly trained thinker who is a representative member of the intelligentsia of one of the greatest and most progressive members in the sisterhood of American Republics.

The readers of the Bulletin will undoubtedly be interested in the brief biographical sketch of Dr. Bunge which follows:

Alejandro E. Bunge, the son of Octavio Bunge and María Luisa Arteaga, was born in Buenos Aires on the 8th of January, 1880, being educated in the Colegio Nacional and the University, where he studied engineering but did not complete the course. Preferring to study abroad, he went to Germany in 1897, entering the School of Engineering of Hainichen where, in 1903, he obtained his degree as civil engineer.

After his return to Argentina he continued his studies, giving his attention especially to political economy, sociology, statistics, and labor. These studies led him into various relations: From 1910 until 1918 he was a member of the Argentine Social League; from 1912 to 1916, president of the labor clubs (*Círculos de Obreros*) of the Republic; from 1918 to 1920 he was a member of the Syndicate of Rural Banks and of the Argentine Social Museum; and in 1919 he was appointed president of the Argentine Social Economic League.

He has also held administrative positions: From 1913 to 1915 he was head of the national department of labor statistics; in 1916, chief of the national census; from 1918 to 1920, member of the commission on the valuation of exports; and in 1919, technical expert of the Argentine delegation to the second financial conference held in Washington.

In 1914 he was appointed professor of statistics in the National University, and in 1918 was elected to the university council of that institution.

He has written much, in pamphlets, in articles—especially in the pages of the *Revista de Economía Argentina* (Argentine Economic Review) which he founded in 1916 and still edits—and also in books. He is the author of *Riqueza y renta en la Argentina, su distribución y su capacidad contributiva*, Buenos Aires, 1917 (Resources and income in Argentina, its distribution and taxable capacity); *Intercambio económico de la República en los años 1910 a 1917*, Buenos Aires, 1918 (Economic interexchange of the Republic in the years 1910 to 1917), and *Los problemas económicos del presente*, Buenos Aires, 1920 (Present economic problems).

SOCIAL WELFARE IN A MODERN CHILEAN IN- DUSTRIAL PLANT¹ ∴

WE WERE ignorant until recently of the fact that a remarkable piece of welfare work is being done in our city by the Chilean Electric Co. The management expends 300,000 pesos annually in caring for its 3,000 employees, notwithstanding the fact that the industry is not an especially dangerous one. When we learned that it had established a medical service for its employees and was acting as a relief agency for the workmen and their families and, above all, had succeeded in promoting harmony between employers and employees, we determined to make a visit to the plant and see the work with our own eyes and, if the story should be true, spread the news to others.

A few minutes after telephoning the management for permission we were on our way and soon reached the dispensary belonging to the Chilean Electric Co. located on the corner of Mapocho and Cueto. As we stood in front of the different factory buildings we watched the smoke rising in graceful columns from the chimneys and the men passing on their way to work. In the heart of an attractive suburb this busy plant was the only thing to suggest manual labor. We saw a number of men, women, and children going toward a building which would not otherwise have attracted our attention. Approaching it, we saw from a bronze plate on the door that we had reached our destination. We stood outside a moment, thinking of the striking contrast presented by the near-by factory, where the rhythmical blows of hammers falling upon metal suggested only material things, and this quiet building where science was at work for humanity.

We entered the waiting room, observing that it was heated and well kept. The walls were covered with posters designed by the Chilean Social Hygiene League to give graphic instruction in the prevention of disease. The room was full, about 50 workmen, some accompanied by their families, waiting their turns. The patients passed into the dispensary by one side door and returned by another after receiving treatment.

As we went in we were impressed by the cleanliness of everything. It was as immaculate as a hospital clinic. The floors were polished until they shone, the walls were painted, and the nickel fixtures looked as if they had just left the shop. There were examination rooms and treatment rooms fully equipped with instruments and apparatus for the doctors' use. We felt at first glance as if we were in some part of the *Asistencia Pública*, supported by the public, rather than in a private clinic.

¹ From "El Mercurio," July 30, 1922, translated by Miss Mary L. Thomas.

The physician in charge, Dr. Humberto Fuenzalida Correa, came to greet us. He was very cordial and willing to furnish all the information we desired. He gave us a history of the work from the very beginning to the present time. He spoke in the highest terms of one of the directors of the Chilean Electric Co., Don Juan Tonkin, for its success had been due largely to his foresight and sound judgment. His vision had made possible the evolution of the work during the past two years, and through his influence sufficient funds had been available for its accomplishment.

We passed from one to another of the different departments, observing the activities that are carried on daily. To the left of the waiting room there is a small examination room, next to that, the dental clinic and, still further back, a fully equipped treatment room and the consultation rooms of the doctors in charge of the work. Although on a smaller scale in every way, this dispensary is a worthy rival of the *Asistencia Pública*. "The company does not count the cost," Dr. Fuenzalida Correa said, "and it is because it believes in furnishing the best quality of everything that we are able to carry out our work without hindrance."

The five doctors in charge of the different departments, who are connected also with various hospitals, are some of the best known younger specialists in the city. Dr. Fuenzalida Correa, specialist in obstetrics and gynecology; Dr. Alejandro Vicuña and Dr. Aldo Contrucci, in internal medicine; Dr. Ignacio Díaz Muñoz, in urinary diseases; and Dr. Gonzalo Moraga, in children's diseases. They all begin their work in the dispensary at 10.30 a. m. and continue past the noon hour if they are needed. Medical service is not confined to the dispensary, however, for after their consultation hour is over the doctors make calls on the workmen and their families who are ill at home. They all have hospital work as well, yet never for one moment do they allow other duties to make them neglect the workmen patients in the dispensary.

The company has made a special arrangement for hospital service. It has four beds for men in the Hospital de San Vicente, and uses an average of 20 per month in connection with the service provided by the Mutual Aid Society, which we shall describe later. It has also two beds in the maternity ward of the Hospital de San Borja and the Women's Hospital, both in charge of Dr. Fuenzalida Correa. Forty-five women, on the average, are helped each month by the society.

To make the medical service complete there is a system for night attendance, when doctors are on call through the telephone exchange of the dispensary. As soon as a call is received the physician is notified that an automobile is leaving the dispensary to call for him at his home and simultaneously the ambulance is sent for the patient. It is a very handsome ambulance, similar to the one belonging to the *Asistencia Pública* for use in case of accidents from fires or street traffic, and superior in many ways. It was built upon a Buick chassis in the factory of the Chilean Electric Co., is very comfortable, and

provided with everything needed for emergency cases. Three chauffeurs, working on eight-hour shifts, are on duty night and day.

The advantages of the dispensary are extended to all the workmen and other employees of the company. Those who belong to the Mutual Aid Society pay two and a half pesos per month and have the privilege of medical service for the whole family living under the same roof. This includes any relatives who are dependent upon a member of the society, and at times the number of these is considerable. They receive the same advantages as a member, including medicine free of charge. "You will not be surprised," said Dr. Fuenzalida Correa, "that, with such large families, our specialists in obstetrics and children's diseases should be the ones called most frequently." Service is given also to employees who do not belong to the Aid Society, but these do not have the privilege of free medicine nor of medical service for their families.

There are many things which make it desirable to join the Mutual Aid Society. After 5 days of illness a member, if he has a certificate from the doctor in attendance, may draw half his daily wage for a period of 60 days. In obstetrical cases the company makes a gift of a complete maternity outfit. In the case of the death of an employee, the company pays the funeral expenses and gives temporary financial aid to the bereaved family. Members have the privilege also of obtaining well-known family medicines at the dispensary.

The company has a contract with the *Botica Francia* to fill prescriptions which the doctors write on special prescription blanks. They do this without charge to members at their drug stores on Calle Ahumada and Calle San Pablo, corner of Brasil. The cost of providing medicine is never less than 11,000 pesos, a significant fact when extension of the service is considered. The *Asistencia Pública* is planning to establish a first-class pharmacy, and when this comes to pass the company will become one of its best customers.

The well-known dentists, Dr. Coriolano Lara and Dr. Roberto Parot, are in charge of the dental clinic, also at the disposal of employees of the company. They take turns so that one of them is always in attendance during the day. The clinic is thoroughly modern, equipped with everything necessary for doing effective work. The patients pay only a part of the cost of materials used, an amount not to exceed the price of similar work done at the dental school clinic.

The former head midwife of the Hospital de San Borja has been engaged by the company to direct a group of 10 women trained for maternity work. These are on call in different sections of the city to give temporary help in obstetrical cases until the service of the Mutual Aid Society is available. The company pays these women the fee which has been agreed upon in advance.

The dispensary is never unattended, not even for an hour, by day or night. Internes, who give treatment in minor cases, are on duty from 7 a. m. They include some of the most competent student doctors in the city, and they give valuable assistance to the physicians.

We shall now continue for a few moments in Dr. Fuenzalida Correa's own words, for he can speak with authority in regard to statistics and matters of administration:

When this dispensary was opened, early in the year 1920, the number of cases daily did not exceed 10 or 11. There was a lack of confidence, hard to explain, which kept the men from taking advantage of the benefits offered them. Perhaps it was due to the fact that the company provided the service, never doubting that it would be acceptable. You ask me whether the labor union was offering similar advantages. As a matter of fact, the Motormen's Council had established its own medical service, but, for reasons, economical reasons easy to understand, it could not be compared with ours. The following figures will tell the story of progress. Whereas two years ago the annual expenditure was less than 100,000 pesos, it is now about 300,000. The total number of cases attended last month was about 3,400. This includes those treated in the dispensary, 20 night calls, and about 200 cases in homes.

The medical service established by the company in the city has been extended to the suburbs of Florida and Río Colorado. In the former, which has a population of 400, there is a permanent service with an interne and a midwife on duty. One of the doctors makes a weekly visit and is on call for any emergency. In Río Colorado, Campamento de Maitenes, where the population numbers 1,500, there is also a physician in charge assisted by an interne and a midwife, a hospital with four beds, and all the equipment needed for medical and surgical work. Having established this branch, I make a monthly visit of inspection.

We have already stated that the members of the Mutual Aid Society pay a nominal fee of 2½ pesos per month and that this entitles them to the different kinds of service. According to the by-laws, the company pays 7½ pesos per month for each member and also subscribes from a special fund for services rendered employees who are nonmembers.

The society is governed by a board of management consisting of the welfare committee of the company, four representatives chosen by the workmen and one from the office force. The welfare committee is made up of two directors, the general manager, the heads of departments, the medical director, and a secretary. The board meets on the first and third Thursday of each month for the transaction of business. Any requests or complaints from members are submitted to this body. In order to keep records in proper form and maintain an efficient service, the society has its own office, open all day, and handles requests for medical service and financial help. It also issues tickets of admission to employees wishing to consult the dispensary, and it sends an official to visit the homes of members who are ill in order to learn their needs and give the help stipulated in the by-laws.

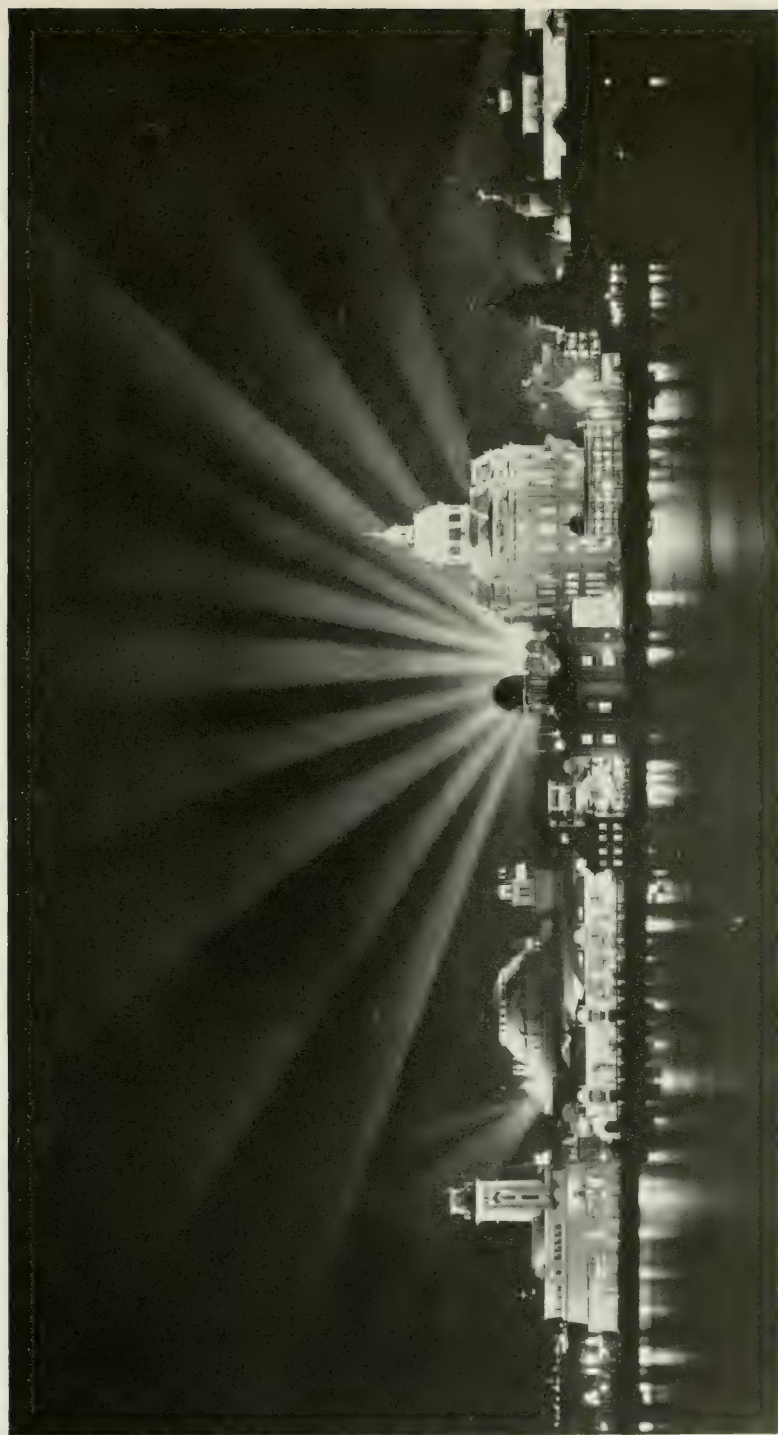
One does not need to be a profound psychologist to realize the social significance of all this work. The company takes a paternal interest in its employees, not only in providing the best of working conditions but in looking after the health of the families, carrying its ministrations into the very home, for it realizes that the two factors of working conditions and home life must be considered, since they work together in determining a man's progress.

"The directors of the company feel a certain satisfaction with what has been accomplished," added Dr. Fuenzalida Correa, as our

visit drew to an end. "With no waning of enthusiasm they have been incessantly busy, providing the funds and whatever we needed to put our work on a sure foundation. Señores Diamond, Hayward, Tonkin, Tocornal, and Claro Lastarria are especially interested, and the welfare committee is already making elaborate plans for future work, counting on their enthusiastic support. One thing we are considering is some kind of insurance for all the employees of the company which will cover every emergency and provide for them and their families. Another thing we expect to do within a short time is to open libraries. At the present time the employees are receiving a magazine called 'El Trabajo' which is the beginning only of the work we hope to do along the lines of education. In short, the foundations of a real welfare have been laid, work which we shall develop step by step as time goes on. Considerable thinking has been done also in connection with the housing problem, but we are unable to do anything at present. Financial conditions in general will not permit beginning the work of building on the large scale we have in mind."

At this point we said good-bye, directing our steps back to the city. The visit of the afternoon had given us much food for thought and we lived over again the things we had seen and heard. We were deeply impressed by the fact that the company is acting from a disinterested motive, for it has shown real consideration and affection toward those in its employ, and this can not fail to have its effect on the morale of the workmen. Realizing that they are receiving the treatment they deserve, they will not hesitate to give the management their hearty cooperation, and thus there will be a common and cordial understanding which will be proof against dissatisfaction and any agitation that might arise without just cause.

As we drew near the city another thought came to us. There are a number of large industrial plants in our country in which attention is being given to this question of relationships. Many experiments are being made along this line, but the places are so isolated, and the plans so often impracticable and carried out in fear and trembling, that no great progress has been made. It seems as if some centralizing agency were needed to direct these scattered activities and to show the manufacturers how they can use their plants in establishing the right relation between employer and employee. We remember reading not long ago about a new organization called "The Association of Labor" which claims to have a program similar to the one proposed. The question is, will it be strong enough to bring all the industries of the country into sympathy with such high ideals? The Chilean Electric Co., notwithstanding the fact that it has established on its own account the excellent service described, has become affiliated with that organization and offers its hearty cooperation in carrying out the work projected. May others follow and so hasten the day when there shall be harmony in industrial relationships throughout our country!



Courtesy of the Brazilian American.

NIGHT VIEW FROM THE HARBOR OF THE INTERNATIONAL EXPOSITION AT RIO DE JANEIRO, COMMEMORATING THE FIRST CENTENARY OF
BRAZILIAN INDEPENDENCE, WHICH WAS OPENED ON SEPTEMBER 7, 1922.



Courtesy of the Brazilian American.

AT THE DEDICATION OF THE SITE IN RIO JANEIRO FOR THE MONUMENT "FRIENDSHIP," THE GIFT OF THE AMERICAN COLONY TO BRAZIL IN COMMEMORATION OF THE CENTENNIAL OF BRAZILIAN INDEPENDENCE.



Courtesy of the Brazilian American.

THE PLAZA OF NATIONS.

In the background may be seen a number of foreign vessels anchored in the Bay of Guanabara. The two buildings are the Pavilions of Statistics and that of Game and Fisheries.



Courtesy of the Brazilian American.

THE BRAZILIAN EXPOSITION. A NIGHT VIEW OF A PORTION OF THE PLAZA OF NATIONS.

The building at the left is the Pavilion of Game and Fisheries and that at the right the Palace of Industries.



Courtesy of the *Brazilian American*.

THE MEXICAN BUILDING AT THE EXPOSITION.

An interesting example of the Chirruaguesque style of architecture.



Courtesy of the *Brazilian American*.

THE PALACE OF COMMUNICATIONS AND AGRICULTURE.



Courtesy of the Brazilian Government.

THE EXPOSITION GROUNDS FROM THE HYDROPLANE LANDING FLOAT.

One of the popular features of the Exposition is the aerial voyage, which affords visitors opportunities for viewing the city of Rio de Janeiro and the harbor.



Courtesy of the *Brazilian American*.

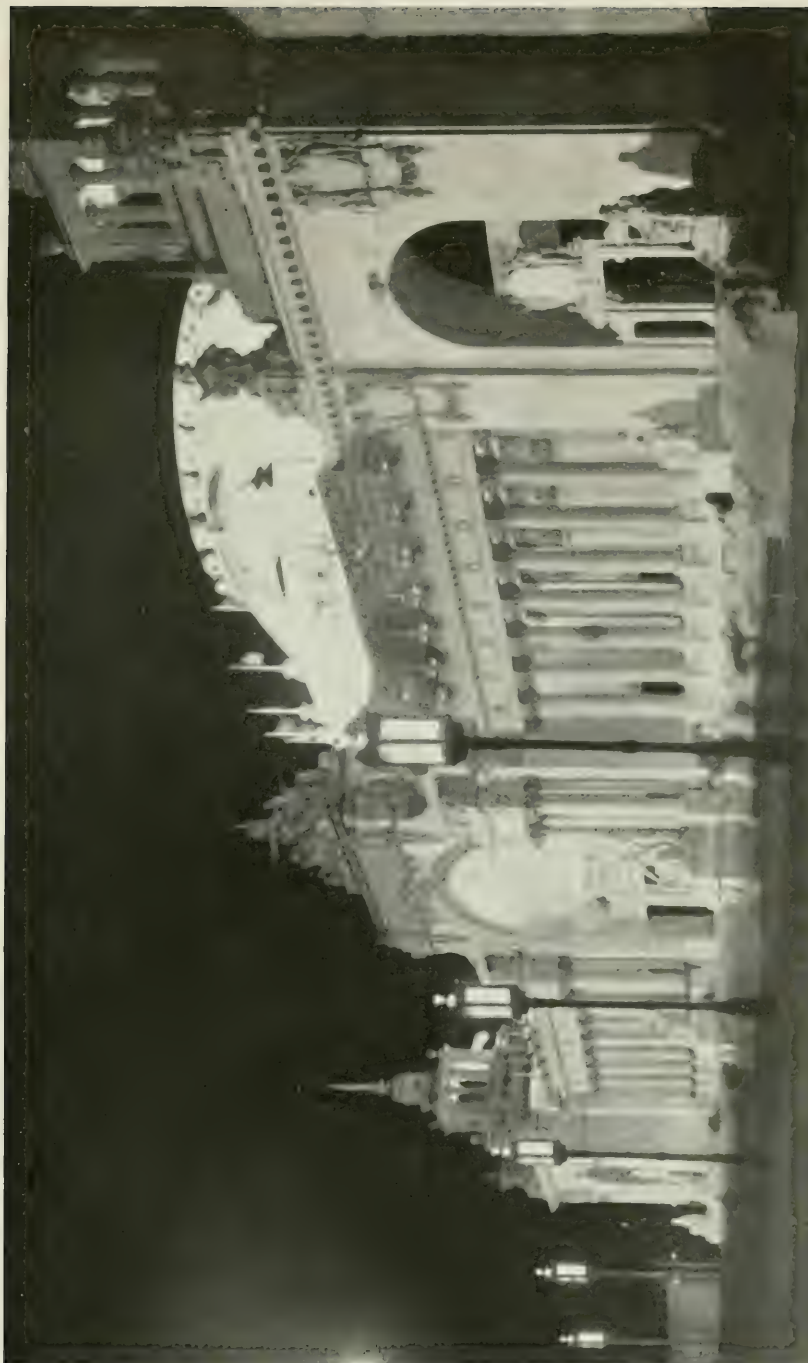
A QUAIN CORNER OF THE PALACE OF INDUSTRIES.



Courtesy of the *Brazilian American*.

THE IMPOSING ENTRANCE TO FESTIVAL HALL.

One of the most beautiful examples of architecture in the Exposition.



Courtesy of the *Brazilian American*.

A NIGHT VIEW OF FESTIVAL HALL.

LATIN AMERICAN FOREIGN TRADE IN 1921—A GENERAL SURVEY.

Countries.	Imports.			Exports.			Total foreign trade.		
	1920	1921	Increase.	1920	1921	Increase.	1920	1921	Increase.
Mexico.....	\$178,775,221	1,190,000,000	\$11,224,779	\$268,273,450	1,210,000,000	\$6,726,550	\$382,048,671	1,400,000,000	\$17,951,320
Guatemala.....	18,344,463	13,369,611	2 4,974,852	18,102,806	12,140,826	2 5,962,080	36,447,369	25,310,437	2 10,936,932
Salvador.....	12,628,370	19,000,000	2 3,628,370	17,943,827	12,000,000	2 5,943,827	30,572,197	1 23,000,000	2 7,572,197
Honduras.....	12,800,762	16,722,700	3,861,938	6,944,725	5,428,587	2 1,516,138	19,405,487	22,131,287	2 2,725,800
Nicaragua.....	13,804,389	5,309,902	2 8,554,487	10,787,345	8,070,949	2 2,716,396	24,651,734	13,380,851	2 11,270,883
Costa Rica.....	22,369,997	9,177,892	2 13,192,195	14,493,551	11,883,971	2 3,049,580	37,303,548	21,061,773	2 16,241,775
Panama.....	17,561,099	11,600,769	2 5,960,330	3,552,166	2,495,407	2 1,056,759	14,136,176	14,136,176	2 6,497,984
Cuba.....	557,016,692	336,435,049	2 200,581,563	794,008,788	278,130,748	2 515,878,040	1,351,025,480	634,565,839	2 716,459,641
Dominican Republic.....	46,525,876	24,585,327	2 21,940,549	58,731,241	20,614,040	2 38,117,193	105,257,117	45,199,375	2 60,057,742
Haiti.....	27,398,411	11,957,205	2 15,441,206	18,990,032	4,953,570	2 14,036,462	46,388,443	16,910,775	2 29,447,668
North American Republics.....	907,346,175	648,218,415	2 259,127,760	1,147,268,031	565,718,098	2 581,549,933	2,054,614,206	1,213,936,513	2 840,677,693
Argentina.....	906,918,668	615,930,000	2 290,988,668	1,012,762,809	651,840,000	2 360,922,809	1,919,681,477	1,267,790,000	2 651,891,477
Bolivia.....	25,482,519	30,162,340	4,679,821	60,847,310	29,647,310	2 31,200,000	86,329,829	59,809,650	2 26,520,179
Brazil.....	459,939,186	219,679,070	2 240,260,116	385,530,392	222,263,800	2 163,266,592	845,469,578	441,942,650	2 403,526,928
Chile.....	106,103,811	139,175,414	2 36,928,397	288,905,301	161,969,895	2 126,935,406	455,069,112	301,145,309	2 153,923,803
Colombia.....	101,397,005	33,038,317	2 68,358,688	70,371,746	63,042,132	2 7,329,614	171,709,651	96,110,449	2 75,599,202
Ecuador.....	21,138,476	10,000,000	2 11,138,476	24,247,478	12,791,969	2 11,455,509	45,385,454	22,791,969	2 22,593,485
Paraguay.....	12,724,949	10,000,000	2 2,724,949	14,510,400	8,988,450	2 5,521,950	27,285,349	17,096,604	2 10,188,745
Peru.....	89,220,968	170,000,000	2 19,220,968	171,578,198	180,000,000	2 91,578,198	260,799,166	1 150,000,000	2 110,799,166
Uruguay.....	41,091,508	41,964,654	2 87,126,854	83,981,789	73,075,892	2 10,905,927	134,073,297	115,040,516	2 19,032,781
Venezuela.....	60,828,338	18,453,115	2 42,385,223	32,934,322	25,777,058	2 7,157,264	93,762,660	44,210,173	2 49,552,487
South American Republics.....	1,893,846,328	1,186,541,004	2 707,305,264	2,145,669,745	1,329,396,596	2 816,273,209	4,039,516,073	2,515,937,600	2 1,523,578,473
Total Latin America.....	2,801,192,503	1,834,759,479	2 966,433,024	3,292,937,776	1,895,114,634	2 1,397,823,142	6,094,130,279	3,729,874,113	2 2,364,256,166

1 Estimate.

2 Decrease.

3 Estimate in part.

FOREIGN TRADE OF LATIN AMERICA IN 1921: GENERAL SURVEY

THERE has been a greater delay in the compilation and report of the foreign trade of the Latin American countries for the year 1921 than has ever heretofore occurred. At the time of the preparation of this survey (Oct. 12, 1922), the Pan American Union has received reports from only 13 of the 20 countries showing returns which may be considered by any means complete. From four countries, Ecuador, Mexico, Salvador, and Peru, there are practically no returns whatever. From Argentina, Bolivia, and Colombia the only returns available are those of gross trade. On this account it has been necessary to estimate the gross trade and distribution thereof of Ecuador, Mexico, Salvador, and Peru, and to estimate the distribution of the trade of Argentina, Bolivia, and Colombia. These estimates have been made chiefly from an inspection and analysis of the foreign trade statistics for 1921 of the United States, Great Britain, and the chief European countries with Latin America, with allowances for transit trade and differences in bases of customs valuations.

The foreign commerce of the 20 Latin American countries for the year 1921 (as above, in part an estimate), customs valuations, was \$3,729,874,113, of which amount \$1,834,759,479 represented imports and \$1,895,114,634 exports. For the preceding year, 1920, the figures are: Imports, \$2,801,192,503; exports, \$3,292,937,776; total, \$6,094,130,279. The decrease in imports was \$966,433,024, and in exports \$1,397,823,142, or a decrease in total trade of \$2,364,256,166, or 38.8 per cent.

Such a great decrease as this occurring in so short a time, including almost every country and in both imports and exports, would, in ordinary times and under ordinary circumstances, indicate something near an industrial breakdown. Such, however, was not the fact as to Latin America, nor was it a fact as to the world at large (all countries' trade shows analogous conditions), notwithstanding the pessimistic outcry, which was, and to an extent is yet, heard in Europe, Asia, Africa, and both the Americas. What happened after the signing of the armistice in November, 1918, was what might have been expected and what came as a surprise to no one having a knowledge

of the ordinary currents of international trade and the perturbations that these currents suffered on account of the war.

Summarized, the conditions at the close of hostilities were:

1. A four years' shortage of manufactures, due to diversion of plants, capital, and labor to production of war materials, and intensified by loss of man power taken into the fighting forces. This shortage was felt most in the nonmanufacturing countries that had been unable to obtain necessary goods not only on account of decreased production in the industrial countries at war, but also on account of scarcity of ships, blockades, embargoes, and black lists maintained for military reasons by the same countries.

2. Accumulations of large credits by all nonbelligerent countries from the sale at inflated prices of their manufactures, raw materials and foodstuffs.

With depleted stocks of imports and full pocketbooks all Latin America after November, 1918, rushed into the restricted markets of the manufacturing countries to buy anything, especially articles of luxury, at no matter what price. Its own commodities, raw materials and foodstuffs, were eagerly caught up by the industrial countries, especially the United States and Great Britain, also at inflated prices. All around, for near two years, there was a frenzied buying and selling that went on all over the world. Prior to the war the exports of the United States had averaged for 10 years about two billions of dollars and the imports about a billion and a half. The war, on account of the food and war material demands of England, France and Italy, drove United States exports up to an average of about double, and imports (chiefly raw materials for manufacture to supply export demands) increased by about 50 per cent. Then the war ended and the rush to buy began. The exports of the United States jumped to \$7,232,000,000, in 1919 and \$8,109,000,000, in 1920 and the imports were \$3,904,000,000 in 1919 and \$5,278,000,000 in 1920.

In 1913, the United States exported \$316,560,000 to and imported \$426,936,000 from Latin America (United States customs valuations).

For the two years following the war the figures were:

	Imports from Latin America.	Exports to Latin America.
1919.....	\$1,318,803,000	\$934,755,000
1920.....	1,766,994,000	1,488,302,000

NOTE.—The above figures, compiled by the United States Bureau of Foreign and Domestic Commerce, represent United States customs valuations and consequently do not agree with the figures in the main tables, published herewith, which are compiled from Latin-American reports and represent Latin-American customs valuations. Both sets of figures are correct, but from different standpoints. For another reason for disagreement, see note at end of this article.

In 1921, United States figures show exports to Latin America, \$758,125,000, and imports from Latin America, \$691,127,000. The total trade was less than the exports alone of the preceding year.

The over-buying and selling in 1919 and 1920 of Latin America was frenzied, but not unnatural nor unlooked for, nor necessarily uneconomic. The liquidation that followed was inevitable. It corresponded to the liquidation that more or less went on all over the world, that reduced United States imports in 1920 from over five and a quarter billion to two and a half billion, and exports from over eight billion to six and a half billion. This liquidation was not complete in Latin America at the close of 1921.

The tables accompanying this article show values alone. When one looks into the question of commodity quantities, he finds that there was no such extraordinary increase in the imports or in the exports of Latin America for the two years 1919 and 1920, as the value increases show. In other words of the two causes for the increases in these two years given above the preponderating one was accumulated credits and high prices of Latin American exports. Refurnishing of depleted stocks played a lesser rôle. Latin American stocks were depleted at the beginning of 1919. Latin America needed manufactures badly, but at the inflated prices that goods from the United States and Europe were then selling Latin America would not, and could not, have paid the price (except for the barest necessities) had it not been that Latin American exports were also inflated in price and had been so for most of the war period—especially the last two and a half years thereof.

The mad rush to buy following the close of hostilities affected nearly all the world. There was little difference in degree between Berlin and Buenos Aires, Paris and Habana, London and New York, Rome and Hongkong. But the purpose and the methods of the buying differed somewhat as between the belligerent and the nonbelligerent countries. France, England, Italy and the German group were buying food and raw materials largely from necessity, but not entirely food and raw materials nor from necessity. Much of the buying was prodigal in the extreme, for each of these countries had its war profiteers, its new millionaires, whose only thought was to spend, spend. The nonbelligerent countries, Spain, Netherlands, Switzerland, the Scandinavian countries, and Latin America, were buying manufactures partly from necessity and more from luxury.

Latin American exports in 1918 amounted to \$2,409,000,000, in 1919 to \$3,086,000,000, and in 1920 to \$3,293,000,000. Compared with the years before the war these figures represented an increase in prices of 100 per cent; \$1,283,000,000 in 1911, \$1,574,000,000 in 1912, and \$1,553,000,000 in 1913. This increase was in the greater part a war-inflated price increase. From 1913 to 1920 there was no extraor-

DISTRIBUTION OF TRADE—IMPORTS.

LATIN AMERICAN IMPORTS FROM LEADING COMMERCIAL COUNTRIES.

Countries.	Total from all countries.		United Kingdom.		France.		Germany.		United States.	
	1920	1921	1920	1921	1920	1921	1920	1921	1920	1921
Mexico.....	\$178,775,221	1 \$190,000,000	\$16,345,949	1 \$18,000,000	\$10,916,266	1 \$10,000,000	\$3,481,400	1 \$5,000,000	\$133,453,162	1 \$145,000,000
Guatemala.....	18,344,463	13,389,611	3,906,779	2,289,047	501,995	480,143	760,326	1,240,360	11,796,510	8,177,442
Salvador.....	12,628,370	19,000,000	1,926,577	1,200,000	482,391	1,600,000	370,221	1,600,000	7,783,180	14,500,000
Honduras.....	12,800,762	16,722,700	1,800,000	1,396,025	1,600,000	281,047	118,000	318,052	11,246,758	14,029,063
Nicaragua.....	13,864,389	5,309,902	1,634,624	654,426	220,958	199,816	145,014	101,047	11,247,589	3,857,202
Costa Rica.....	22,369,997	9,177,892	3,179,228	1,554,310	579,908	225,439	3,001,912	187,918	11,657,757	5,132,441
Panama.....	17,561,994	11,660,769	1,574,543	863,904	417,700	289,811	106,829	187,080	13,012,609	8,351,496
Cuba.....	557,016,692	356,435,000	17,703,990	17,128,166	16,879,245	9,336,006	2,879,504	5,374,980	404,385,707	265,548,658
Dominican Republic.....	46,525,876	24,585,327	1,536,556	645,639	657,617	326,167	428,954	239,961	38,848,791	20,645,484
Haiti.....	27,398,411	11,957,205	2,286,614	818,756	1,451,700	1,137,589	1,200,000	1,200,000	22,773,762	9,543,011
North American Republics.....	907,346,175	648,218,415	50,894,869	45,579,703	32,167,780	23,096,108	11,392,160	13,449,398	666,187,885	484,984,797
Per cent of imports.....	100.00	100.00	5.60	7.03	3.54	3.36	1.25	2.07	73.42	74.81
Argentina.....	906,918,668	615,950,000	212,047,319	1,150,000,000	33,391,370	1,35,000,000	43,281,595	1,75,000,000	309,813,449	1,170,000,000
Bolivia.....	25,482,519	30,162,340	5,431,614	1,7,000,000	33,995,641	1,800,000	43,800,227	11,500,000	7,693,787	16,800,000
Brazil.....	450,939,188	210,679,070	99,670,780	44,865,280	25,823,820	13,585,790	23,063,456	17,817,020	103,652,140	68,321,700
Chile.....	166,103,811	139,175,014	42,400,699	37,511,430	10,319,539	8,154,471	7,692,152	12,077,444	51,108,793	38,360,077
Colombia.....	101,397,805	33,068,317	14,000,000	5,500,000	12,000,000	1,500,000	12,300,000	1,000,000	165,000,000	18,500,000
Ecuador.....	21,388,476	110,000,000	4,906,352	1,500,000	678,072	1,500,000	545,612	1,530,000	12,353,945	18,700,000
Paraguay.....	12,524,949	8,108,154	2,327,642	1,686,452	2,557,180	1,500,000	544,748	1,539,165	3,653,069	1,400,329
Peru.....	89,220,908	170,000,000	13,093,788	18,000,000	2,657,744	12,800,000	1,321,112	14,500,000	49,421,054	120,000,000
Uruguay.....	50,091,508	41,964,654	8,630,991	7,241,892	2,854,195	1,237,466	1,237,466	2,904,822	15,280,135	10,788,394
Venezuela.....	60,828,338	18,433,115	14,226,224	3,456,462	4,009,508	1,385,006	2,614,748	783,845	31,541,957	10,652,358
South American Republic.....	1,893,846,328	1,186,541,064	416,935,639	277,911,576	102,514,983	64,914,909	83,006,494	117,652,276	738,802,780	348,723,978
Per cent of imports.....	100.00	100.00	22.01	23.42	5.47	5.47	4.41	9.86	39.01	29.38
Total of the 20 Republics.....	2,801,192,503	1,894,759,479	467,830,508	323,491,279	134,682,763	88,011,017	94,999,154	130,501,674	1,404,990,674	833,706,775
Per cent of imports.....	100.00	100.00	16.70	17.62	4.80	4.79	3.39	7.11	50.15	43.43

1 Estimate.

DISTRIBUTION OF TRADE—EXPORTS.

LATIN AMERICAN EXPORTS TO LEADING COMMERCIAL COUNTRIES.

Countries.	Total to all countries.			United Kingdom.		France.		Germany.		United States.	
	1920	1921	1920	1920	1921	1920	1921	1920	1921	1920	1921
Mexico.....	\$203,273,450	1 \$210,000,000	\$7,294,378	1 \$30,000,000		\$2,402,178	1 \$8,000,000	\$659,581	1 \$15,000,000	\$179,405,965	1 \$120,000,000
Guatemala.....	18,102,906	12,140,826	460,142	133,618		15,622	11,985	99,505	1,757,306	15,092,269	8,114,117
Salvador.....	17,943,827	112,000,000	752,651	1 800,000		1,056,905	1 3,000,000	138,617	1 250,000	11,622,771	1 3,000,000
Honduras.....	6,944,725	5,428,587	3,654	875					9,446	6,065,675	4,946,200
Nicaragua.....	10,787,345	8,070,949	306,491	109,474		546,044	857,640		53,834	9,294,809	6,065,511
Costa Rica.....	14,933,551	11,883,971	3,103,434	2,978,329		155,497	44,036	32,378	62,262	10,615,020	8,205,511
Panama.....	3,552,166	2,495,407	254,036	108,894		4,097	2,618	32,784	41,933	3,210,510	2,316,815
Cuba.....	794,008,788	278,130,740	98,354,736	27,232,572		13,005,079	4,905,475		458,392	626,915,178	222,541,281
Dominican Republic.....	58,731,241	20,614,048	807,523	334,165		3,050,797	465,738		933,461	51,113,090	16,017,920
Haiti.....	18,990,032	4,953,570	318,120	179,299		6,531,252	2,511,586	1 400,000	1 180,000	9,903,881	1 603,652
North American Republics.....	1,147,268,031	565,718,008	111,655,165	61,877,236		26,767,471	19,793,078	1,691,538	18,746,634	923,840,068	392,900,027
Per cent of exports.....	100.00	100.00	9.73	10.93		2.33	3.49	0.14	3.31	80.52	69.45
Argentina.....	1,012,762,809	651,840,000	271,286,997	1 290,000,000		68,697,840	1 23,000,000	23,043,407	1 55,000,000	149,511,063	1 65,000,000
Bolivia.....	60,847,310	29,647,310	27,208,805	111,000,000		387,398	1 250,000	47,587	1 100,000	28,041,032	1 14,000,000
Brazil.....	383,530,302	229,263,800	50,805,280	15,329,089		44,100,760	22,205,560	24,706,220	21,456,370	159,541,580	81,628,820
Chile.....	288,905,301	161,963,895	59,822,515	23,646,460		11,513,576	7,981,580	2,073,474	5,493,712	125,730,710	27,178,868
Colombia.....	70,371,746	163,032,132	59,500,000	1 3,000,000		11,000,000	1 1,000,000	1 80,000	1 2,000,000	53,573,029	14,000,000
Ecuador.....	34,317,478	12,791,693	4,240,448	1 2,900,000		1,805,508	1 850,000	870,397	1 1,000,000	13,304,469	1 3,250,000
Paraguay.....	14,510,400	1 80,000,450	304,539	1 80,000		1,740,766	89,020		52,493	1,351,453	1 662,315
Peru.....	171,378,198	61,632,730	61,632,730	1 35,000,000		4,082,370	2 500,000	74,271	1 500,000	79,048,347	1 30,000,000
Uruguay.....	83,384,789	79,059,802	17,786,129	17,786,129		13,306,061	12,073,061	6,186,966	11,877,403	21,017,379	19,408,743
Venezuela.....	32,334,322	25,777,038	4,727,515	2 370,045		3,164,429	2 415,276	166,966	1 015,719	13,461,636	10,378,413
South American Republics.....	2,145,669,745	1,329,396,536	479,124,614	402,042,655		148,889,089	67,362,097	57,829,212	98,295,697	646,483,518	298,907,139
Per cent of exports.....	100.00	100.00	22.32	30.24		6.93	5.06	2.69	7.39	30.12	22.48
Total of the 20 Republics.....	3,292,937,776	1,865,114,634	590,779,779	463,919,881		175,656,560	87,161,175	59,520,750	117,042,331	1,570,323,616	691,807,186
Per cent of exports.....	100.00	100.00	17.94	24.47		5.33	4.39	1.80	6.17	47.68	36.50

1 Estimate.

dinary increase in Latin American population, industry, or output. The production of sugar, oil, and a few minor products increased, but there was no general increase in production and quantity export to warrant 100 per cent increase in export values. An example of price inflation—an extreme one—is sugar. In the year immediately preceding the war the United States imported from Cuba 2,453,303 tons of sugar, value \$98,395,000; in 1920 the figures were 3,273,643 tons, value \$773,707,000. An increase of one-third in quantity is represented by an increase of nearly eight times in value. Argentine exports in 1913 amounted to \$469,000,000, almost entirely agricultural, grains, meats, wool, hides, etc. The exports in 1920 were of the same products in quantities but little greater, but the value was \$1,013,000,000, more than double. In 1921 the export of the same products, on an average nearly the same as in 1920 in quantity, represented a value of only \$652,000,000. This figure was yet \$173,000,000 above the 1913 value and on about the same scale that the prices of 1921 exceeded the prices of 1913.

Argentina's imports for 1921 as compared with 1920 decreased in nearly the same proportion as the exports. If the liquidation had then been complete the import decrease would no doubt have been greater. This decrease was from \$907,000,000 to \$616,000,000. The Argentine General Office of Statistics has estimated that the fall in prices of imported cotton textiles amounted to 45 per cent, of silk textiles to 35 per cent, of bags and bagging to 24 per cent, of edible oils and kerosene to 20 per cent, of some other petroleum products and of iron and steel manufactures to 50 per cent. So in reality there was no considerable falling off in Argentina's imports nor in the imports of most of the other Latin American countries.

CHARACTER OF LATIN AMERICAN TRADE.

The imports of Latin American countries are chiefly finished manufactures. This naturally follows from the fact that there is little manufacturing, except by hand and small shop trades, in any of the countries, although Argentina, Brazil, Chile, and Mexico have some more important manufacturing plants. The imports of manufactures, of which textiles, machinery, furniture, vehicles, ready-made clothing, tools and hardware are among the principal ones, are of the same kinds and qualities for all the countries, making some allowance for climatic differences where necessary in the matter of textiles and clothing. Of unmanufactured products, they all import leather, oils, and lumber, and a few—Mexico, Argentina, and Brazil chiefly—raw cotton. In food products there is a greater diversity. Argentina and Uruguay do not import wheat and other bread grains nor flour. These two countries (and in some years Chile also) are exporters.

All the other countries import wheat and wheat flour. Argentina, Chile, and Uruguay are the chief importers of sugar.

On the side of exports there is much diversity. Practically all the exports fall into two classes, raw materials for use in manufacturing and primary food products.

The greatest development of minerals and consequently the largest export is from Mexico, Colombia, Peru, Bolivia, and Chile, but there is a wide difference in the character of mining and in the class of minerals exploited in these countries. Gold is produced in some eight or ten countries, but only in Mexico and Colombia does gold production attain world importance. The same can be said of silver, but only in Mexico is it of considerable amount. Colombia produces platinum and emeralds. Chile, Peru, Bolivia, and Mexico produce copper and Bolivia tin. Cuba, Chile, and Brazil have large iron deposits, but at present development is confined chiefly to Cuba. Nitrate is a Chilean monopoly. Oil production has not yet attained world consequence, except in Mexico and Peru.

Of agricultural products, Argentine and Uruguay (Chile occasionally) have practically a monopoly of export of wheat, oats, linseed, corn, flour, bran, and hay. The same countries, with Brazil added, export fresh meat and wool. Beginnings of the meat-packing industry have been made in Colombia and Venezuela, which have for years exported live cattle. Hides and skins are exported from all the countries and coffee from all those bordering on the Caribbean and in addition from Ecuador, Peru, and Brazil—Brazil, as is well known, being the principal source of the world's supply of coffee. Cacao is exported in general from all the countries exporting coffee, but chiefly from Ecuador, Brazil, and the Dominican Republic. Cuba is the principal sugar and tobacco exporting country, but Brazil exports both these products and Peru, the Dominican Republic, Haiti, and some others of the tropical countries export sugar.

DISTRIBUTION OF TRADE.

PERCENTAGES.

Year.	United States.		United Kingdom.		Germany.		France.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
1910.....	23.50	34.46	26.02	20.87	15.55	11.13	8.35	8.63
1911.....	23.79	34.29	25.73	20.92	16.72	12.85	8.25	9.15
1912.....	24.50	34.43	24.84	19.79	16.67	11.88	8.32	7.89
1913.....	25.03	30.78	24.42	21.24	16.55	12.38	8.32	7.99
1914.....	27.94	38.20	23.92	22.32	14.62	8.75	6.64	6.41
1915.....	42.15	40.71	20.51	22.20	1.84	.02	4.65	6.55
1916.....	51.77	46.41	17.88	20.57			4.45	8.84
1917.....	54.71	51.72	14.89	21.00			3.70	8.04
1918.....	49.48	46.83	16.86	24.43			3.71	7.12
1919.....	48.79	44.49	15.30	18.11	.19	.15	3.28	11.24
1920.....	50.15	47.68	16.70	17.94	3.39	1.80	4.80	5.33
1921.....	45.43	36.50	17.62	24.47	7.11	6.17	4.79	4.59

Four countries—the United States, the United Kingdom, Germany, and France—have for a long period led in Latin-American trade. For about a generation the United States has led in total trade, i. e., the sum of both imports and exports of Latin America, but until 1913 imports from the United Kingdom exceeded the imports from the United States. Since 1913 the United States has led on both sides of the trade. During the late war German trade for most practical purposes expired, although some clandestine trade through Holland and the Scandinavian countries remained.

There has been some revival of German trade since the war, but it will probably be many years, if ever, before German and French trades in Latin America assume the importance they had before the war.

NOTE.—In the tables of distribution of trade published herewith, allowance must be made for the fact that in Argentine and Uruguay a large percentage of the grain shipments is “on orders” and consequently the final destination is not known or noted by the statistical offices. This fact affects chiefly the exports to Europe and allows for some increase in the figures published as to exports to the United Kingdom, Germany, and France for all the years shown. The same “on orders” condition exists in the nitrate exports of Chile, but these chiefly affect the exports to the United States. In 1920 the “on orders” nitrate export of Chile amounted to nearly \$11,000,000, and in 1921 to over \$24,000,000; in both cases the larger proportion of “on orders” nitrate was entered in the United States, following cable instructions at Panama.



THE LATIN AMERICAN ARTIST IN THE ART GAL- LERIES OF THE UNITED STATES

JUDGED by the quality of the work of Latin American sculptors exhibited in national and international expositions of the last few years, both in America and in Europe, sculptural art in these countries has, in obedience to new impulses and tendencies, reached a new stage of development which calls for a revision of previous estimates and a new appreciation of values.

In much of this work one perceives the emergence of the individual note, too long held in abeyance, which differentiates the work of the true American artist from stereotyped imitation of his European prototypes. One is conscious also of a more exact equilibrium in composition which is, in some cases, almost faultless; a better comprehension of decorative values and the proper place of the decorative motive in diverse compositions; an increasing absence of meretricious and purely theatrical effects; and, everywhere, abundant evidence of deep feeling and a constantly increasing appreciation of the value of hard work in preparation. This is particularly evident in the numerous monumental works which have marked the more or less recent centenary anniversaries celebrated in Guatemala, Peru, Mexico, and Brazil, and particularly in the architectural features of the splendid exposition buildings inaugurated in Rio Janeiro last September.

Latin American artists, not content with increasing triumphs at home, are now invading the United States, where they are winning their full share of laurels. There has been hardly an exhibition of note during the last ten years in which some Latin American artist was not represented. Indeed it is not at all uncommon to find in Boston, New York, Philadelphia, Chicago, St. Louis, and San Francisco an entire gallery devoted solely to the work of a single representative Latin American artist.

One of the most conspicuous examples of the one-artist exhibit was the intensely interesting one held last spring in Washington, D. C., of the work of that brilliant young Peruvian, Francisco Gonzáles Gamarra, in which were included a number of notable portraits.



THE SERMON ON THE MOUNT, BY GUSTAVO ARCILA URIBE.

Exhibited in the Art Institute, Chicago, March, 1922, where it was awarded the Mrs. John C. Shaffer prize for an ideal composition.



INTERROGANTE(QUESTIONING), BY GUSTAVO ARCILA URIBE.



HEAD OF A CHILD.



BUST OF A YOUNG ENGLISH GIRL.

Both of these heads are the work of Gustavo Arcila Uribe.

numerous landscapes, and some exceedingly interesting etchings. Born in Cuzco, the son and grandson of artists of recognized talent, Sr. Gonzáles Gamarra is now "carrying on" in New York City, where he has established his studio and where he is adding new luster to the family tradition and the artistic achievements of Peru.

A more recent triumph and one still fresh in the memory of the readers of the BULLETIN is the case of Gustavo Arcila Uribe, that extremely modest and promising young sculptor who, born and educated in Bogotá—that ancient seat of Spanish learning and culture where the flame of the humanities has never been dimmed—came to the United States a year or so ago, where in that incredibly short space of time he has not only gained the attention of the public but admittance to the principal galleries of the East. Moreover, in the twenty-sixth annual exhibition of the Art Institute of Chicago, in the spring of 1922, one of the five works exhibited by this young artist was awarded the Schaffer prize, offered annually for the best ideal sculptural composition. It may be added that Sr. Arcila Uribe is the first Hispano-American artist to obtain this distinction.

The BULLETIN takes great pleasure in reproducing here photographs of the most notable of this young Colombian's work, including "The Sermon on the Mount," to which was awarded the prize mentioned.



MODEL OF STATUE OF DON QUIXOTE, BY GUSTAVO
ARCILA URIBE.

PRINCIPAL LATIN AMERICAN GOVERNMENT AND MUNICIPAL SECURITIES OFFERED FOR SUBSCRIPTION IN THE U. S. A.

YEAR 1921.

[000 omitted.]

Name of security.	Coupon.	Maturity.	Amount in cur- rency of issue.	New capital.	Total offered.	Out- standing July 1, 1922.
Argentine Nation.....	7's.....	1923	\$50,000	\$50,000	\$50,000	\$50,000
United States of Brazil.....	8's.....	1941	50,000	50,000	50,000	49,000
State of S. Paulo.....	8's.....	1936	10,000	10,000	10,000	9,960
State of R. Grande do S.....	8's.....	1946	10,000	10,000	10,000	9,800
City of Rio de Janeiro.....	8's.....	1946	12,000	12,000	12,000	11,760
Republic of Chile.....	8's.....	1941	24,000	24,000	24,000	22,800
Do.....	8's.....	1926	9,500	9,500	9,500	9,500
Do.....	8's.....	1946	10,500	10,500	10,500	10,290
Republic of Uruguay.....	8's.....	1946	7,500	7,500	7,500	7,425
Dominican Republic.....	8's.....	1925	2,500	2,500	2,500	.....

JANUARY-JUNE, 1922, INCLUSIVE.

Argentine Nation.....	7's.....	1927	\$27,000	\$27,000	\$27,000	\$27,000
City of Buenos Aires.....	5's.....	1946	£250	1,095	¹ 1,095	1,095
United States of Brazil.....	7½'s.....	1952	£2,000	8,880	¹ 8,880	8,880
Do.....	7's.....	1952	\$25,000	25,000	25,000	25,000
State Santa Catharina.....	8's.....	1947	\$5,000	² 3,500	5,000	5,000
City of Rio de Janeiro.....	8's.....	1947	\$13,000	³ 3,000	13,000	13,000
City of Sao Paulo.....	8's.....	1952	\$4,000	4,000	4,000	4,000
City of Porto Alegre.....	8's.....	1961	\$3,500	3,500	3,500	3,500
City of Montevideo.....	7's.....	1952	\$6,000	6,000	6,000	6,000
Republic of Bolivia.....	8's.....	1947	\$24,000	24,000	24,000	24,000
Republic of Chile.....	8's.....	1950	¹ 10,000	1,350	¹ 1,350	1,350
Republic of Cuba.....	6's.....	1923	\$5,000	5,000	5,000	5,000
Dominican Republic.....	5½'s.....	1942	\$6,700	⁴ 4,200	6,700	6,700

¹ Issue figured in dollars on basis of original offering price.² \$1,500 refunding.³ \$10,000 refunding.⁴ \$2,500 refunding.

PRINCIPAL LATIN AMERICAN CORPORATION SECURITIES OFFERED FOR SUBSCRIPTION IN THE UNITED STATES.

YEAR 1921.

[000 omitted.]

Name of security.	Coupon.	Maturity.	Amount in cur- rency of issue.	New capital.	Total offered.	Out- standing July 1, 1922.
United Railways of Havana.....	7½'s.....	1936	\$6,000	\$6,000	\$6,000	\$5,600
Campagne du Boleo.....	8's.....	1926-30	1,000	1,000	1,000	1,000
Caribbean Sugar Co.....	8's.....	1926	1,500	1,500	1,500	1,500

JANUARY-JUNE, 1922, INCLUSIVE.

Paulista Railway Co.....	7's.....	1942	\$4,000	\$4,000	\$4,000	\$4,000
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SUMMARY.

Total Government and municipal loans:

1921.....	\$186,000,000
January-June, 1922.....	130,525,000
	\$316,525,000

Total corporation loans:

1921.....	8,500,000
January-June, 1922.....	4,000,000
	12,500,000

Grand total Latin American loans offered in U. S., Jan. 1, 1921-June 30, 1922 329,025,000

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

ARGENTINE RURAL SOCIETY EXPOSITION.—The annual exposition was opened at Palermo on September 3 with a fine collection of prize animals. Foreign judges were present, among them being M. Avaline, expert French judge of the Anglo-Norman, Percheron, and Boulonnais breeds of horses; Señor Federico R. Vidiella, delegate of the Uruguayan Rural Society; C. Howard Taylor, of the British Royal Agricultural Society; and G. Humphry, of the University of Wisconsin, who spoke on the dairy industry of that part of the United States. Excellent examples of the Shorthorn, Aberdeen Angus, Hereford, Jersey, Friburg, and Holland Friesian cattle were on exhibit. One champion bull brought 32,000 pesos.

ROADS.—The municipality of Olavarria is to expend 20,000 pesos on drainage pipes for the roads. Streets leading to the station of Manantial, Province of Tucumán, are to be improved at an expense of 4,650 pesos. The Abra Pampa-Rinconada road in Jujuy Province is also to be improved, for which purpose there is an appropriation of 6,975.40 pesos. The national roads program includes many other appropriations for roads, bridges, drains, sewers, and similar public improvements.

EXPORTS.—From January 1 to August 31, 1922, the following number of metric tons of cereals were exported from Argentina: Wheat, 3,107,445; maize, 1,291,158; linseed, 688,004; and oats, 253,835. On the same date 70,140 tons of flour, 20,545 tons of barley, and 7,354 tons of birdseed had been exported, against 28,495 tons of flour, 40,118 tons of barley, and 3,499 tons of birdseed during the corresponding period of 1921. To August 31, 443,610 cases of butter had been exported against 600,560 cases in the same period of 1921. Bales of sheepskins exported to August 31 amounted to 48,813, against 12,193 in the corresponding period of the previous year.

PETROLEUM AS RAILWAY FUEL.—According to the "Review of the River Plate," the Argentine State Railways have tried using petroleum as fuel in four locomotives between Córdoba and Cruz del Eje with much success. As a consequence locomotives on the Güemes, La Quiaca, and Salta runs, as well as the expresses between Tucumán and Salta, will soon adopt oil as fuel.

BOLIVIA.

OIL CONCESSIONS IN BOLIVIA.—The Bolivian Government has signed a contract with the Standard Oil Co. in respect to petroleum concessions covering 1,000,000 hectares in Chuquisaca, Santa Cruz, and Tarija. The contract stipulates for a term of 55 years, the State to receive normally 11 per cent of the total production, with special provisos in the eventuality of war. The concessionaires are required to deposit a guarantee of a quarter of a million bolivianos (about £20,000), and to renounce any right to diplomatic intervention in the case of disputes. (*The West Coast Leader*.)

COCHABAMBA-SANTA CRUZ RAILROADS.—In its issue of August 11, 1922, the "Review of the River Plate" says:

A telegram from La Paz, dated August 9, 1922, states that the Bolivian Government has issued a decree calling for public tenders for the construction of a railway between Cochabamba and Santa Cruz. Offers are to be presented to the Ministerio de Fomento not later than June 30, 1923. In the offers it must be stated clearly what price is asked for the work or for sections of it. The line to be constructed will have a total length of 625 kilometers, with a branch line of 60 kilometers to the Port of Ichilo or to some other navigable point near Santa Cruz. The line will be of 1-meter gauge, maximum gradient 3 per cent, minimum curves 75 meters radius. The successful tenderer will be required to make a deposit of 1,000,000 bolivianos in guaranty of fulfillment of the contract. The State will guarantee 8 per cent per annum during a period of 25 years on the capital invested.

From a copy of the above-mentioned decree later received by the Pan American Union it is learned that the work must be begun within 60 days after the signing of the contract, and completed 6 years after it is begun, under penalty of a fine of 100,000 bolivianos for each month's delay which may be attributable to the concessionary; also that the length of the concession is 99 years, or less time at the discretion of the bidders, at the end of which period the line and its equipment passes into the hands of the Government.

RAILROAD.—During the latter part of August work was begun at a rapid rate on the Yungas-Pará-Beni Railroad. It is hoped that by the end of the year construction will be completed as far as Vegas Yungas.

WAGON ROADS.—The Government has asked for bids on two wagon roads which are to be constructed at a cost of approximately \$100,000.

TIN EXPORTS IN JULY.—Exports of tin from Bolivia during July amounted to 5,009 metric tons, of which the United Kingdom took 3,145 tons, the United States 1,730 tons, France 101 tons, Germany 31 tons, and Chile 2 tons.

Tin prices have slightly improved, thus offsetting the effects of the higher value of Bolivian currency. A leading local exporter quotes tin concentrates at £158 7s. 6d. per ton cash and £158 10s. at 90

days' sight. Most of the tin mines are not working or are producing on a small scale, and it is believed that the stocks of tin concentrates on hand are not large. The lowering of freights and the decrease in the cost of smelting tin are expected to help the industry somewhat. (*Commerce Reports.*)

IMPORT STATISTICS.—The following statistics for 1921 have just been issued and are presented in comparison with similar figures for the years 1913 and 1920. Weights are given in kilos and values in bolivianos. The normal rate of exchange is 2.57 bolivianos to the dollar. The average quotation for August, 1922, was 3.36.

Bolivian import statistics.

Articles.	1921		1920		1913	
	Kilos.	Bolivianos.	Kilos.	Bolivianos.	Kilos.	Bolivianos.
Live animals.....	1,946,716	1,435,569	2,091,750	1,171,324	9,504,603	2,230,284
Foodstuffs and beverages.....	27,427,140	13,901,749	26,595,893	16,200,662	40,018,572	10,353,546
Raw materials or partly manufactured.....	55,976,319	7,691,756	71,452,473	10,422,364	64,378,416	4,706,631
Manufactured articles.....	20,011,772	37,098,424	21,763,795	37,425,554	53,543,657	34,095,872
Gold and silver coin and bullion.....	58	557	81,423	119,600	2,075	3,376,500
Total.....	105,362,005	60,128,005	121,985,334	65,339,504	172,447,323	65,339,504

(*Commerce Reports.*)

BRAZIL.

BRAZILIAN CABLE DEVELOPMENTS.—Decrees signed April 7 and 8 by the President of Brazil approve the following telegraph and cable developments: (1) Plans of the All America Cables for overhead telegraph lines and cable stations in São Paulo and Santos; (2) similar plans in the same cities submitted by the Western Telegraph Co. (Ltd.) for its plant; (3) petition of Enrico Sehoch for permission to organize a company for the construction and operation of cables from Rio de Janeiro to Rome and from Rio de Janeiro to Montevideo.

The authority granted to Enrico Sehoch specifies that the proposed company shall enjoy no special privileges, monopoly, or subvention in Brazil. The new company is a further development of the plan for a cable from Italy to Brazil, the Italian concession having been obtained last September.

On August 25, 1922, President Harding signed a license authorizing the Western Union Telegraph Co. to land and operate at Miami Beach, Fla., a cable extending from there to Barbadoes, where it connects with the line of the Western Telegraph Co. (Ltd.), going to Brazil.

One of the conditions of the issuance of this license was that the Western Telegraph Co. should surrender exclusive privileges which it enjoyed under concessions in South American countries of the east

coast, while the All America Cable Co. likewise renounced similar privileges enjoyed by it in countries of the west coast of South America. Both companies have made such waivers.

Through the courtesy of Mr. Carlton, president of the Western Union Telegraph Co., the Secretary of State of the United States was permitted to send the first message over the Miami cable on August 29:

His Excellency JOSÉ MANUEL DE AZEREDO MARQUEZ,

The Minister of Foreign Affairs of Brazil, Rio de Janeiro.

EXCELLENCY: Permit me to express on behalf of President Harding his deep gratification at the opening of the new cable to Brazil, thus increasing at an opportune time facilities of communication between the two countries and forming a new link of mutual interest and amity. Please accept my hearty felicitations upon this happy event.

(Signed) CHARLES E. HUGHES,

Secretary of State of the United States of America.

HYDROPLANE "PORTO ALEGRE."—The firm of Braga, Alvares & Co. (Ltd.), of Pelotas, have constructed a hydroplane, which they have named *Porto Alegre*, and which was being got ready to undertake a journey to the capital of the State of Rio Grande do Sul. The hydroplane has accommodations for 12 passengers, including the pilot and the mechanic. The upper part of the machine has the shape of an automobile. The motor, which is placed in the rear, is a Fiat, developing a velocity of from 60 to 80 kilometers per hour, it being the intention of the enterprise to cover the distance between Pelotas and Porto Alegre in five hours. The company expects to perform a regular service between the two cities, with landings at certain intermediate places, for which purpose a second hydroplane is to be constructed with more ample accommodations for the transportation of passengers.

RAILWAY SYSTEM OF RIO GRANDE DO SUL.—On the 3d of June last work was begun on the branch line of the Porto Alegre & Uruguayan Railway, the object of which is to connect the cities of Alegrete and Quarahy. The new administration of the Great Southern has already renewed the entire telegraph line belonging to the road, and undertaken important repairs on the rolling stock.

NAVIGABILITY OF THE CUYABÁ RIVER.—The commission in charge of the study of the Cuyaba River, in the State of Matto Grosso, has for its object the examination of the present conditions of navigability of that river and of the improvements required in the same between its mouth, in the Paraguay River, and Cuyabá, the capital of the State of Matto Grosso, an approximate extension of 436 kilometers, with a view to the maintenance of unhindered traffic during periods of the lowest water level.

NAVIGATION OF THE SÃO PAULO COAST.—The Companhia Santense de Navegação has renewed its contract with the São Paulo Government, the company engaging to establish a line from Santos to Ubatuba, touching at São Sebastião, Villa Bella, and Caraguatatuba. This service will utilize a boat with capacity for 50 passengers, and barges for the transportation of freight, with a capacity of 30 tons. The Government will grant to this enterprise a subsidy of 80,000 milreis per annum.

CHILE.

COST OF LIVING.—The following index figures of the cost of living, compiled by Sr. Alberto Edwards, are given in "La Información" for July:

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Housing.....	100	100	100	109	118	127	136	145	154	154
Light and heat.....	100	105	109	126	121	131	149	166	195	209
Foodstuffs (national).....	100	115	122	108	112	116	133	160	146	138
Foodstuffs (imported).....	100	121	127	125	110	133	203	208	204	216
Beverages.....	100	91	91	107	107	107	107	124	129	133
Clothing and household articles.....	100	110	145	154	166	174	187	202	212	212
Railway transportation.....	100	142	158	142	113	117	142	151	213	272
Street-car transportation.....	100	100	100	100	100	100	100	100	100	100
Total.....	100	106	114	115	123	131	145	160	165	165

SANTIAGO TO THE UNITED STATES BY CABLE.—On August 29 the West Coast Cable opened direct communication from Santiago to the United States via the Western Union.

SAMPLES FOR THE UNITED STATES.—A California steamship company has offered free transportation to Chilean products sent to the United States as samples.

TRANSANDINE VIA JUNCAL.—At a meeting in London to arrange matters in connection with the unification of the Chilean and Argentine lines of the Transandine via Juncal the board of directors was elected and Mr. C. White was named manager.

CONCRETE RAILWAY BRIDGE.—The official tests of the concrete railway bridge over the Maipo River, on the Paine-Talagante Railroad, recently took place with great success. The bridge, which is said to be the longest concrete railroad bridge in South America, is 681 meters in length, and rests on 46 piers from 12 to 15 meters high. National materials were used in the construction.

STREET CAR POSTAL SERVICE.—The first street car postal service in the Republic has been opened between Concepción and Talcahuano, a distance of about 6 miles. Four cars have been fitted with mail boxes, and letters for this service may be deposited at the post office in the city or in the car mail box.

COLOMBIA.

LIGHTHOUSES.—The Department of Public Works has concluded a contract with a Swedish company under which two lighthouses of a patented system will be constructed and mounted, one in the port of Riohacha and the other in the island of El Morro, in the archipelago of Tumaco. These lighthouses will cost the Government the sum of 30,250 pesos national currency.

IMPORTANT WORKS.—Congress has appropriated 500,000 pesos for the construction of aqueducts in Barranquilla, Cartagena, and Buenaventura and the sanitation work in Bogotá.

GIRARDOT RAILWAY.—The Government has just concluded a contract with the Colombian National Railway Co. (Ltd.), of London, concerning the Girardot Railway. This contract stipulates that the company will turn over to the Government the property, cash, rights, and shares belonging to the company, and the management of the railway; and that the Government will cancel the debt owed it by the company, which amounts to 7,137,010 pesos, and take over the mortgages on the property, but will assume no responsibility for any of the company's debts other than those mentioned in the contract.

MEASUREMENT OF TELEGRAPH AND TELEPHONE LINES.—The Minister of the Interior has ordered the measurement of the national telegraph and telephone lines, in order to obtain an exact record of their extension, which on May 31 reached 21,565.913 kilometers. The new line from San Vicente de Chucurí and Barrancabermeja, which will be 110 kilometers in length, will soon be opened. During the last four and a half years 2,557.804 kilometers of telegraph lines have been installed.

SILK INDUSTRY.—For the purpose of promoting the silk industry two schools have been established in Santander, one in Zapatoca and the other in Bucaramanga.

Many people are interested in this new work. A large plantation of 20,000 trees, owned by a Colombian, provides food for 800,000 silkworms that produce daily 6 pounds of silk. The owner has ordered modern machinery in order to enlarge his business, as has the director of the sericulture school in Bucaramanga, who has conducted successful propaganda for the cultivation of the mulberry tree and raising of silkworms. A company has been formed in Piedecuesta that has already acquired the property for a large plantation of mulberry trees, sufficient to feed 1,000,000 silkworms.

PUBLIC WORKS IN MEDELLÍN.—The public works in Medellín are valued at the following sums:

	Pesos.		Pesos.
Tramways.....	1,000,000	Electric plants.....	1,200,000
Water works.....	600,000	Telephones.....	400,000
Market.....	400,000	Slaughterhouse.....	200,000

The municipal council has appointed new members of the road committee; has ordered 10 per cent of the proceeds of every kind of public entertainment to be given to charity; and has decreed that a statue be erected to the memory of Bolívar.

HOTEL IN BUENAVENTURA.—The Pacific Railway Co. will supply the necessary funds, not to exceed 40,000 pesos, to build a hotel in the port of Buenaventura, which will be leased by public auction or run under the company's management.

COSTA RICA.

WIRELESS TOWERS.—The Compañía Radiográfica of Costa Rica has received the concession of a 400 by 200 yard lot in the outskirts of San José for the erection of wireless towers. The concession is to last 45 years.

SEWER BIDS.—The municipality of San José has called for bids on the construction of a 345-foot sewer for the waters of Quebrada Chileperro, and a similar one for the Quebrada de las Arias.

CABLE OFFICE.—Puntarenas is to have an office of the All America Cables; one is also to be opened later in Guanacaste.

IMPROVED ROAD.—The cantons of Acosta and Tarrazú will benefit by the leveling of the Aserrí hill, which will make the road practicable for automobiles. The sum of 9,000 colones, derived from the tax of 10 centavos on each quart of liquor, is in hand for the work.

CUBA.

INTERNATIONAL COMMERCIAL EXPOSITION.—This exposition, which took place in Habana during the months of November and December, 1922, in connection with the Latin American Medical Congress and the National Convention of Maternity, was divided into the following groups: 1, Chemical and biological products; dental, veterinary, and radium preparations; 2, furniture, apparatus, and instruments for pharmacies and laboratories, and for orthopedic, optical, X-ray, dental, and veterinary purposes; 3, foods and beverages; 4, construction material (sanitary engineering); 5, books and pamphlets; 6, animal and vegetable foodstuffs; 7, large and small installations not specified in the groups given above.

The exposition will be held in connection with the Sixth Latin American Medical Congress, an International Exposition of Hygiene, and the National Maternity Concourse, all under the direction of the Secretary of Sanitation. The Medical Congress will be in session from November 19 to 26, and the exposition, opening at the same time, will continue for at least 30 days, with the possibility of the period being extended.

The site of the exposition and Medical Congress is the old convent of Santa Clara de Asis, which, on account of its size and central loca-

tion, is admirably suited for the purpose. In the convent grounds are located several interesting buildings, the oldest of which dates back to 1529. These will be open to the public for the first time in many years.

DOMINICAN REPUBLIC.

FREIGHT TRUCKS.—As a result of the opening of the Duarte Highway, already mentioned in the BULLETIN, daily automobile trucking service has been inaugurated between Santo Domingo and El Cibao and biweekly service between the capital and Santiago.

HIGHWAYS.—Among the works of highway construction now under way may be mentioned the road from La Vega to Cotuy and the repair of that between Santo Domingo and Villa Mella.

Money prizes have been offered by the Department of Public Works to the highway officials of various ranks, in charge of sections varying from 1 to 25 kilometers in length, who show the greatest improvement in the sections under their care for the period from September 1 to December 20, 1922.

IMPROVEMENTS BY AN AGRICULTURAL COMPANY.—A company engaged in growing and grinding sugar cane in the Province of Barahona has been authorized to construct, maintain, and use a drainage system 13 kilometers long, emptying into the River Yagua del Sur.

ECUADOR.

CACAO EXPORTS.—Cacao exported through Guayaquil in sacks of 175 pounds net, during the first half of 1922, totaled 312,064 sacks, of which 128,781 were consigned to the United States, 62,401 to Germany, 64,655 to Holland, 12,860 to France, 10,167 to England, 5,370 to Belgium, 3,600 to Norway, 2,050 to Italy, 4,200 to Denmark, 7,625 to Spain, 6,125 to Sweden, 40 to Mexico, 1,350 to Chile, 2,171 to Colombia, 600 to Argentina, 50 to Uruguay, and 19 to Peru.

RAILROAD AND ROAD TO THE COAST.—Work is progressing satisfactorily on the railroad from Guayaquil to the coast. On September 7 an engine drawing a work train with material went as far as kilometer 6. Rails and ties are provided for nearly 100 kilometers more and a force of 100 is employed.

As the road to the coast from Guayaquil is torn up owing to laying the railroad tracks, a committee of capitalists is undertaking the building of a new road for automobile traffic.

RAILROAD CONSTRUCTION FUNDS.—From June 1, 1921, to May 31, 1922, the following national funds have been invested in railroad improvements: Quito-Esmeraldas, 502,929.90 sucres; Ambato-Curaray Railroad, 72,379.93 sucres; Sibambe-Cuenca Railroad, 315,789.19 sucres; Bahía-Chone Railroad, 60,782.60 sucres; San Juan Chico-Riobamba Railroad, 36,121.91 sucres; Puerto Bolívar-Loja Railroad,

6,595.80 sucres, and Manta-Santa Ana Railroad, 129,737.21 sucres, making a total of 1,124,336.54 sucres.

GUAYAQUIL-ESMERALDAS FLIGHT.—The Macchi airplane given to Ecuador by the Chinese colony made a flight from Guayaquil to Esmeraldas with stops at Salinas and Manta in a trial trip to prove the practicability of air service along the coast. The airplane was manned by two Italian aviators and their mechanic who made the round trip of 1,300 kilometers in two days amid much popular enthusiasm. It is hoped to improve communication through districts not provided with roads by means of air service.

GUAYAQUIL DOCK AND CUSTOMHOUSE.—Bids on the building of the Guayaquil dock and customhouse have been called for. The specifications call for the use of reinforced concrete; a wharf with loading and unloading facilities; dock warehouse; customhouse; offices of customs guards, the captain of the port, and the Maritime Public Health Service; repair shops, rolling stock supply sheds and electric plant for the buildings. The wharf is to have a capacity for docking three 10,000-ton vessels at once, with sufficient railroad sidings, cranes, and equipment to unload five vessels simultaneously.

GUATEMALA.

MASONRY BRIDGE.—The sum of 12,000 pesos has been appropriated for erecting the masonry bridge to be built over the San Luis River at San Juan Chamelco, in the Department of Alta Vera Paz.

FISHING AND PEARL SHELL.—A 10-year concession for fishing and pearl shell gathering has been granted in the waters of the Departments of El Petén and Izabal. The concessionary agrees to export a minimum of 500 tons of products or derivatives, and to pay \$5 American gold per ton.

COCONUTS.—The Minister of Agriculture has signed a 10-year contract with Sr. Federico Asenz de Tejada to rent property in the Department of Izabal for a coconut plantation. Sr. Tejada is to pay \$3 for each 1,000 coconuts exported.

FLIGHT FROM GUATEMALA TO SALVADOR.—On August 3, two French aviators, Fromont and Jeanneau, made the first continuous flight from Guatemala City to San Salvador. The flight lasted two hours and fifty minutes. They landed without mishap on the President's estate near the city, where they were greeted by the President and other officials.

HAITI.

VEGETABLE IVORY NUTS.—The Department of Agriculture has issued an announcement of the receipt of some tagua (vegetable ivory) nuts, such as are used for making buttons. These will be given to persons desirous of planting them.

HYDROGRAPHIC BRIGADE.—The duties of the hydrographic brigade recently established in the Department of Public Works include the examination of the streams of the Republic in order to know which may be utilized for irrigation. Topographers will later study possible projects and draw up a complete plan for their execution.

HONDURAS.

WATER SUPPLY.—Congress has appropriated 2,000 silver pesos as a subsidy for the municipality of El Negrito in Yoro Department to install a water supply. The funds are to come from the Revenue Administration of the Department.

MEXICO.

MINING ASSOCIATION.—An association was recently organized by the most important mining companies of the State of Chihuahua, under the name of "Amara Minera del Estado de Chihuahua," composed of 2 Mexican companies, 3 English, and 12 American, the combined capital of which amounts to \$75,000,000 American gold. The object of the new association is to cooperate in the development of mining, study the laws that protect this industry, compile statistics, and give general information to its members.

SUGAR INDUSTRY.—The sugar produced during the season dating from November, 1921, to July, 1922, amounted approximately to 119,800 tons. The number of mills existing in the country and the tons of sugar they produce are as follows: 21 in Vera Cruz, 50,000 tons; 7 in Sinaloa, 24,100 tons; 6 in Puebla, 10,000 tons; 15 in Michoacán, 10,000 tons; 16 in Jalisco, 7,000 tons; 2 in Nayarit, 6,000 tons; 9 in Oaxaca, 5,000 tons; 11 in Tabasco, 4,000 tons; 3 in Comuna, 1,700 tons; 1 in San Luis Potosí, 1,500 tons; and 1 in Yucatán, 500 tons.

EXPORTATION OF AUTOMOBILES.—According to statistics published by the National Automobile Chamber of Commerce of the United States, the number of automobiles bought by Mexico from the United States in 1921 amounted to 6,750 passenger cars, valued at \$5,183,791; 1,482 trucks, valued at \$1,554,544; and accessories and spare parts, valued at \$1,528,729.

PRODUCTION OF MINERALS.—The production of minerals during the first semester of 1922 was the following: Gold, 11,146 kilos; silver, 1,195,356 kilos; lead, 42,065,160 kilos; copper, 6,479,008 kilos; zinc, 1,064,929 kilos; graphite, 1,306,098 kilos; arsenic, 63,252 kilos; mercury, 17,045,380 kilos, and antimony, 275,213 kilos.

TELEPHONE SERVICE WITH GUATEMALA.—A telephone service has recently been established between the towns of Mariscal, Mexico, and Ayutla, Guatemala, which constitutes an important advance in the

relations between the two countries. This line will connect the Mexican consulate in Guatemala with the immigration office in Chiapas, thus aiding the commerce between the two countries.

RICE, WHEAT, AND BLACK BEAN CROPS.—The Bureau of Propaganda of the Department of Agriculture announces that the wheat crop in 1922 will aggregate 181,494,852 kilos, valued at 18,149,485 pesos; the black bean crop, 97,780,326 kilos, and rice, 17,814,500 kilos.

WIRELESS SERVICE WITH BRAZIL.—As a symbol of her friendly relations with Brazil and in connection with the celebration of the centenary of Brazilian independence, the Mexican Government inaugurated, on September 7, 1922, the wireless service between the two Republics, under the treaties concluded between the two Governments through the Mexican Embassy in Río de Janeiro.

NICARAGUA.

BUOYS IN CORINTO BAY.—Four new buoys have been placed in the harbor of Corinto to protect the vessels of larger draft now touching at that port. They are under the management of the customs collector of Corinto, who makes a monthly inspection to see that their positions are identical with the indications on the Hydrographic Chart.

PANAMA.

MILK.—A report was recently made to the Rotarians on Panama City's milk supply, which is furnished by the Central de Lecherías. This central plant was formed by all the dairymen of Panamá who, with a medical officer from the sanitary department, combined in 1920 to give the city a clean milk supply. The cattle are practically all on farms on the Sábanas, the rolling grass lands east of the city. One of the landowners of that section has recently bought a pedigreed bull from the United States for the purpose of raising the quality of the local breed of cattle. It is stated as a proof of the purity of the milk furnished by the Central de Lecherías that the hospitals purchase their supply from this source.

MAHOGANY TO THE UNITED STATES.—A barque which arrived some weeks ago with machinery for a timber company and an oil corporation of Río Congo and Garachiné, respectively, recently left Río Congo with a cargo of 1,200 tons of mahogany from that region.

PARAGUAY.

GOVERNMENT LANDS AND COLONIES.—The Office of Lands and Colonization has received during the last few years the following sums in payment for Government lands occupied and devoted to agriculture: 384,936.86 pesos in 1917; 436,119 pesos in 1918; 308,254.65

pesos in 1919; 374,830.15 pesos in 1920; 499,405.32 pesos in 1921 and 121,354.85 pesos in the first semester of 1922.

PALO SANTO or LIGNUM VITÆ.—The palo santo, or lignum vitæ, is found in the Chaco region. It is as hard as quebracho, but differs from it in its dark green color; it is very resinous and aromatic. The Indians use it for firewood on account of its fumes, which are believed to have the property of dispersing the mosquitoes and other insects to a considerable distance. Paraguay produces various kinds of soft woods which are well adapted to the manufacture of paper.

YERBA MATE.—Great interest has been created in the cultivation of this plant, a valuable Paraguayan product which is easily placed on the foreign market. The Office of Lands and Colonization has offered many facilities to colonists who will devote themselves to planting yerba mate, and has obtained the approval of an amendment to the law by which a colonist is entitled to the deed on the lot assigned him after he has occupied it for 5 years, provided he has set out 300 plants during that time.

COTTON.—The cultivation of cotton has increased greatly in the agricultural colonies, due to the successful outcome of the first cotton crops and to the distribution of cotton seed from the United States by the Office of Lands and Colonization, which awakened great interest in this industry among the colonists. The large yield from this seed was mentioned in the September BULLETIN.

BANANA INDUSTRY.—For the purpose of promoting this industry, the Office of Lands and Colonization has announced that colonists engaging in banana growing who wish to obtain definite ownership of their lands must plant at least 3 hectares of banana trees, spaced 3 meters apart, and free from any lien.

SUGAR AND ALCOHOL.—The Sociedad Anónima Azucarera, an enterprise which has greatly aided the development of the Chaco region, was organized for the purpose of cultivating sugar cane and producing sugar and alcohol. It has leased 937 hectares of Government land and invested 381,556 gold pesos in machinery for a sugar mill. The sugar cane ground in 1921 amounted to 13,719 tons, and produced 755,000 kilos of sugar and 136,000 liters of alcohol.

PERU.

IRRIGATION WORKS.—The important irrigation works in the Pampa del Imperial, which is in the southern part of Peru, were inaugurated in August by the President of the Republic. The event is particularly noteworthy, as these are the most extensive in the country. The water is taken from the Cañete River by an intake which receives 6,500 liters of water per second. The canal then follows the north bank of the river, which here flows through a ravine, so that tunnels for the canal have been made through the hills at the side, the longest

of these being 2,322 meters. At the distance of 12 kilometers from the intake the canal drops 70 meters, after which it skirts the pampas 16 kilometers, until it divides into two sections, each 10 kilometers in length. Seven thousand hectares are thus opened to cultivation, in which the 700 laborers employed on the work are to share. Ten thousand horsepower can also be made available.

To facilitate the construction work and transport 20 kilometers of roads were constructed, which will now serve as a permanent link between the valley towns and other districts of the province.

One of the interesting incidents in connection with the construction was the flight of an American machinery representative from Lima to Cañete (120 miles) to install a hoist of which there was urgent need. In four hours he had made the round trip and completed his work. The journey was undertaken in company with the aviator regularly employed by the Government to carry the weekly pay roll.

A resident of the Department of La Libertad has had prepared and has presented to the Ministry of Promotion plans for an irrigation project to serve 30,000 hectares of the pampas of Chicama, utilizing water from the Moche River. The total cost of the work is estimated at Lp. 50,000, toward which the resident in question has already spent Lp. 35,000. The minister will endeavor to secure a Government appropriation for the remaining sum necessary.

NEW ROAD.—Surveys are being made for a new road between Coracora and Chala.

PURE MILK IN LIMA.—The national cooperative dairy, formed by the Government in connection with an Argentine company, was opened in Lima on September 3 of this year. It is expected to play a prominent part in public health and to serve as a model for similar institutions in Arequipa, Cuzco, Piura, Trujillo, and other centers of population.

The model stables have a capacity of 200 cows, which are all tuberculin tested. Apparatus for cleaning the stables has been ordered from the United States, as well as the milk bottles, which will have patent covers.

NATIONAL STOCK SHOW.—In September a national stock show, the largest ever held, took place in Lima under the auspices of the Department of Promotion, which is interested in developing the stock industry in the Republic through good breeds, control of cattle diseases, and all other means. The animals exhibited belonged to the following breeds: Holstein, Brown Swiss, Simenthal, Freiburg, Normandy, and Durham.

BUSSES IN LIMA.—Scores of passenger busses, reports the "West Coast Leader," are now running to various parts of the city, although less than a year ago they were practically unknown.

FAVORABLE TRADE BALANCE.—The foreign trade of the Republic for the first semester of 1922 showed a favorable trade balance of Lp. 3,156,163, the exports amounting to Lp. 7,937,052 and the imports to Lp. 4,780,889. The figures for the corresponding period last year were: Exports, Lp. 7,807,033 and imports Lp. 9,562,304. The United States, which since 1913 has held first place in Peru's import trade, supplied 41.48 per cent of the imports, Great Britain following with 18.529 per cent, and Germany with 10.216 per cent. The first two countries hold the same places in the list of consumers of Peruvian products, the respective percentages being 40.867 and 25.139, but Chile is third with 12.014 per cent, Argentina and Germany occupying the fourth and fifth places. (*Resumen del Comercio Exterior del Perú, Primer Semestre de 1922.*)

SALVADOR.

AGRICULTURAL STATION ADVISES PLANTING.—Since, owing to a prolonged drought and the severe storms, the usual maize crop of Salvador suffered severely, the director of the Agricultural Department's model farm has asked the press to recommend the planting of more maize to replace that which, due to unfortunate weather conditions and a destructive insect plague, is lacking for the country's provision.

URUGUAY.

RAILROAD AND FAST STEAMER SERVICE.—A United States company has submitted a proposal to the National Council of Administration to establish a rapid-transit service between Montevideo and Buenos Aires. The plans include (a) the construction of an electric street railway; (b) the construction of a railway from Montevideo to Colonia for fast passenger service; (c) a terminal station in Colonia; (d) two fast passenger steamers for service between Colonia and Buenos Aires. The American company would provide the Uruguayan Government with necessary funds to finance this project up to the sum of \$15,000,000, the company to be employed to carry out the necessary construction.

JERKED BEEF EXPOSITION.—The National Committee for the Defense of Production has prepared the program of the Jerked Beef Exposition to take place in Montevideo the latter part of January, 1923, to show meats salted by different processes; methods of packing; the prize film "El Tasaño" (Jerked Beef) of the film contest on this subject; a public reading of the prize monograph on "The food value of jerked beef" by the winner; lecture by a professor of the School of Medicine on "Meat as a national food"; practical demonstration of methods of cooking jerked beef, and the awarding of prizes in the contests.

FOREIGN TRADE.—The foreign trade of Uruguay during the first seven months of 1922 was as follows: Imports, 24,747,952 pesos, official valuation, and exports, 46,114,640 pesos, actual valuation. During the corresponding period of 1921 imports amounted to 23,158,855 pesos, official valuation, and exports to 50,056,089 pesos, real valuation.

TELEGRAPH TAX.—See page 621.

VENEZUELA.

COFFEE AND CACAO.—The editor of "La Hacienda" has organized a coffee and cacao exposition, which will take place December 19, 1922, to January 7, 1923, in Caracas. The suggestion has created much enthusiasm among planters, who have commenced to make great preparations in order that the exposition may prove a success.

ECONOMIC AND FINANCIAL AFFAIRS

ARGENTINA.

BRANCH BANK.—A branch of the Bank of Córdoba was opened in Calle Cangallo, Buenos Aires, on September 25.

BANCO DE LA NACIÓN.—In the real estate administration section, recently opened in the Banco de la Nación, the following charges have been fixed for different operations: For collection of rents, on each monthly payment of 100 to 300 pesos, $3\frac{1}{2}$ per cent; from 301 to 500 pesos, 3 per cent; from 501 to 1,000, $2\frac{1}{2}$ per cent; from 1,001 to 5,000, 2 per cent; and from 5,000 up, $1\frac{1}{2}$ per cent. On quarterly collections the percentage on 100 to 400 pesos is 4 per cent, the percentage decreasing proportionately to the increase of the collection; the fee for half-yearly collections begins with $3\frac{1}{2}$ per cent, while annual collections will pay the bank 3 per cent. Other percentages are given for other forms of real estate administration.

BRAZIL.

STATE OF BAHIA LOAN.—An issue of \$5,000,000 State of Bahia 8 per cent sinking fund preference gold bonds was recently placed in the United States. The bonds are dated October 1, 1922, and will mature in 20 years. The loan is redeemable as a whole on any interest date at 107; callable by lot for sinking fund beginning in April, 1928, at 105.

These bonds are the direct and general obligation of the State of Bahia, and in addition, they are secured by deposit of the revenues of the State on exports of hides, skins, sugar, and on statistical and agronomical services. The proceeds of this loan are to be used for the construction of highways within the State. The bonds were offered at 99½ and interest for the first \$2,000,000 of the issue, and at 100½ and interest for the remaining \$3,000,000.

CHILE.

GOVERNMENT LOAN.—By virtue of the authority vested in him by law, the President of the Republic has accepted the proposals of a number of credit institutions in Chile to underwrite bonds to the value of 30,000,000 pesos, part of a loan of 135,000,000 pesos which the National Congress authorized in a law enacted in August, 1922. The banking organizations which have agreed to accept these bonds, with the amounts subscribed by each, are as follows: Bank of Chile, 20,000,000 pesos; Caja Nacional de Ahorros (National Savings Bank), 5,500,000 pesos; Bank of Edwards & Co., 2,500,000 pesos; Banco Nacional, 2,000,000 pesos. The bonds will bear interest at 8 per cent per annum, and will be issued for a term of seven years. The loan will be amortized by means of a sinking fund of 20 per cent of the nominal value of the bonds, to commence two years after the date of emission.

To cover the remainder of the issue authorized (including interest for the first year), a loan of \$18,000,000 was floated in the United States during the early part of November. The bonds, which bear interest at the rate of 7 per cent per annum, will mature in 20 years, and are not redeemable except for sinking fund. The contract for the loan provides for a cumulative sinking fund of 2 per cent per annum beginning after the expiration of the second year of the loan, to be used to purchase bonds at not exceeding 100 and interest, or, if bonds are not obtainable at or below that price, for redemption of bonds by lot semiannually at 100. This fund will be sufficient to retire about 70 per cent of the issue by maturity.

The bonds are the direct credit obligations of the Republic of Chile, which covenants that if in the future it shall sell bonds or contract any loan secured by any charge or pledge on any of its assets or revenues, the service of the present loan shall be secured equally and ratably with such subsequent issue or loan.

SAVINGS BANKS.—The total number of depositors in Chilean savings banks on June 30, 1922, was 1,080,691, an increase of 48,564 over the number a year before, while their deposits likewise showed an increase—25,225,822.66 pesos—the total being 233,174,735.34 pesos.

COLOMBIA.

MUNICIPAL TAXES IN BOGOTÁ.—The total amount of municipal taxes collected in Bogotá between March and August of the current year showed an increase of 30.08 per cent, or 106,377 pesos, over the revenue during the same months of 1921, although due to certain restrictive measures the revenue on alcohol was greatly decreased.

COSTA RICA.

CUSTOMS RECEIPTS.—The customs receipts in the various ports of the Republic for the first six months of 1922 were as follows: San José, 2,057,984.38 colones; Limón, 1,166,215.09 colones; Puntarenas, 580,072.66 colones; and Sixaola, 143,102.68 colones, making a total of 3,947,374.81 colones, which, compared with 3,487,160.64 colones for the corresponding period of the previous year, shows a favorable balance of 460,214.17 colones for 1922.

HAITI.

NATIONAL DEBT.—The total public debt of the Republic of Haiti has recently been estimated at \$17,871,471.75, made up as follows:

Francs 87,023,425 converted at 8 cents.....	\$6,971,874.00
Internal short-term bonds.....	1,971,029.84
Interior debt.....	3,275,379.69
	12,218,283.53
Floating debt, various claims (subject to verification).....	5,653,188.22
Total public debt.....	17,871,471.75

\$16,000,000 LOAN.—In October, 1922, the National City Co. of New York placed on the market an issue of \$16,000,000 Republic of Haiti external gold bonds. The bonds, which will mature in 30 years, or on October 1, 1952, are noncallable for 15 years, except for the sinking fund, and will bear interest at the rate of 6 per cent. The loan will be retired by purchase in the open market at not exceeding par, or by annual drawings at par, and there will be a sinking fund sufficient to retire the entire issue before maturity. The Government reserves the right to retire the entire issue, upon reasonable notice, at any time after 15 years from the date of issue.

The proceeds of these bonds, known as series A and part of a total authorized loan of \$40,000,000, will be used for refunding two Haitian loans now outstanding in France to the amount of about 85,838,500 francs, and to provide funds to pay the internal floating debt and for other governmental purposes, including public works.

These bonds are guaranteed by the general revenues of the Republic, as a first lien, and by the customs receipts, as a second lien, with the exception of 5 per cent of the latter already set aside for the payment of the salaries and expenses of the receiver general and the financial adviser of the Republic.

Haiti proposes presently to issue about \$5,000,000 series B bonds of this loan, which will be a distinct and separate issue from series A, payable only in Haiti. These bonds will bear 6 per cent interest and will mature in 30 years. The object of the loan is to refund first the interior debt, and then the floating debt and various claims against the Government.

It is understood that no further issue of the \$40,000,000 loan is contemplated for the present.

HONDURAS.

NATIONAL BANK.—The President has approved the contract founding a Bank of the Republic in cooperation with the Banco de Honduras, in accordance with action taken by Congress in 1918. The capital of the new bank will be for the present 2,000,000 silver pesos. The stockholders in the Banco de Honduras and the Government are to be considered the founders of the Banco de la República. The Government subscribes 20 per cent of the capital, the Banco the amount of its present capital, and the rest will be offered for sale in the first meeting of stockholders. The order governing this bank is published in the "Gaceta" of July 25, 1922.

CUSTOMS REVENUE.—The customs revenue collected during each of the first seven months of 1922 was as follows: January, 452,524 silver pesos; February, 316,743 silver pesos; March, 344,007 silver pesos; April, 325,111 silver pesos; May, 371,038 silver pesos; June, 357,660 silver pesos; and July, 389,474 silver pesos. The revenue from the liquor tax for the first seven months of 1922 amounted to 1,132,121 silver pesos. In both cases the amounts used for the last three months were preliminary figures.

PERU.

RESERVE BANK.—The assets and liabilities of the Reserve Bank of Peru on August 31, 1922, were given as Lp.7,174,149. The bank discounts paper at the following rates: $6\frac{1}{2}$ per cent for agricultural notes due within 180 days, 7 per cent for documents maturing within 30 days, and $7\frac{1}{2}$ per cent for documents falling due between 31 and 90 days.

The total of all documents exchanged among the associated banks during August was Lp.4,043,865.

LEGISLATION

ARGENTINA.

NEW EMBASSIES.—The Argentine Congress has approved the law which provides for raising the Argentine legations in Chile and Brazil to the rank of embassies, and the Executive has promoted the present ministers plenipotentiary to those countries to the rank of ambassador.

BRAZIL.

EXEMPTION FROM TAX.—By a decree of August 12, 1922, the Supreme Court held that foreign corporations authorized to carry on business in the Republic which distribute no dividends in Brazil are exempt from payment of the tax on dividends.

PARLIAMENTARY DOCUMENTS.—The Chamber of Deputies has charged Dr. Primitivo Moacyr with the task of coordinating and publishing the documents of Congress. All subjects found in the congressional annals are being carefully arranged, with the result that easy access can be had to any topic. Up to the present 14 volumes have been published on the subject of Intervention in the States, 7 on State of Siege, 3 on Presidential Messages, 2 on The Conversion Fund, 3 on Social Legislation, 2 on The Valorization of Coffee, 1 on The Defense of Rubber, 10 on Public Instruction, 1 on Interstate Taxes, and 12 on The Circulating Medium. Dr. Moacyr is now engaged in the preparation of further volumes on The Circulating Medium, The States (Espírito Santo, 1920), Public Instruction (1917–1922), Presidential Messages (1915–1922), Droughts in the Northeast, The State of São Paulo (1922), all of which are expected to appear shortly.

HOUSING.—The President has signed a law by which the Executive is authorized to undertake the construction, either by contract or by administration, of as many as five thousand houses for public officials or laborers employed by the Federal Government. The price of these dwellings is not to exceed 10,000 milreis each, and the payments are to be made in monthly installments to be discounted from the pay of the employee, at such a rate as will lead to the complete amortization of the debt in 15 years, when the property will be turned over to the holder in fee simple. The price of each house is not to exceed the cost plus the interest and expenses. By another section of the law provision is made for the lending of money

to Army and Navy officers and public employees or laborers for the purpose of building dwelling houses in case they own the necessary land. The text of this law is given in the *Diario Oficial* of Aug. 24, 1922, under the title Decree No. 4,561, of August 21st, 1922. Another law giving Government aid to housing, issued early in the year, was noted in the June number of the *BULLETIN*.

CUBA.

DISTRIBUTION AND SALE OF NARCOTICS.—The President of the Republic has issued a decree by which a change has been made in the regulations prescribed for the enforcement of the law of July 25, 1919, governing the prescription, distribution, and use of narcotics. The complete text of this amendment was published in the "*Gaceta Oficial*" of September 15, 1922.

DOMINICAN REPUBLIC.

NO PASSPORTS REQUIRED FOR UNITED STATES.—Since September 1 no passports have been required of Dominican citizens entering the United States directly or through Canada, Bermuda, the Bahamas, Newfoundland, Mexico, Haiti, Cuba, St. Pierre, or Miguelón.

GUATEMALA.

HYDROCARBON LAW.—This law was signed by the President on June 3, 1922, and published in the "*Guatemalteco*," official paper, of September 4. According to the revisions of the law the Government is owner of all hydrocarbon deposits, which it grants for varying periods of years according to the zone in which the concession lies. Exploration rights are taxable at 5 cents American gold per hectare annually. For the working of hydrocarbon concessions, the concessionary must pay to the Government 10 per cent of the gross product. . . .

HAITI.

DIPLOMATIC COUNCIL.—A presidential decree of September 1, 1922, created a diplomatic council in the Department of Foreign Affairs, composed of the present and all former Secretaries of Foreign Affairs, delegates to international conferences, and other members formerly diplomats or versed in international affairs. The duties of the council will be to execute the acts of the Pan American conferences, to furnish to the Pan American Union all information of use to it, and to study national questions in order to assure the best course of action on the part of the Department of Foreign Affairs.

MEXICO.

EXEMPTION FROM TAXES.—The President of the Republic published a decree in which he urged all builders, capitalists, companies, individuals, syndicates, etc., to erect new buildings in Mexico City, which will be exempt from real estate taxes, federal taxes, municipal water and paving taxation, and the building license fee.

Houses or offices rented for 20 pesos monthly will be tax exempt for 10 years; those rented for 75 pesos, 7 years; those rented for 125 pesos, 5 years; and those rented for more than 120 pesos, 3 years.

(There is an acute housing shortage in Mexico City.)

TAX ON PETROLEUM.—According to "Mexico" of September 1, 1922, President Obregón of Mexico has issued a decree, under date of August 17, by which he makes permanent the provisional agreement entered into by the Mexican Government and the oil companies operating in Mexico for the payment of taxes. This decree is an outcome of the conferences held in New York by Secretary de la Huerta, of the Mexican Treasury, and the representative of five of the largest oil companies operating in Mexico. The decree is also intended as a further step toward the fulfillment of the agreement made by the Mexican Government with the international committee of bankers for the settlement of the Mexican foreign debt.

PARAGUAY.

BANK MORATORIUM.—Congress has enacted a law, and the President has sanctioned it, by which the moratorium granted the Banco Mercantil del Paraguay by Law No. 541 will be extended to June 30, 1926. The bank has promised to pay the total amount of its obligations in quotas, the date and amount of which will be determined by the President in accordance with its funds and the report presented by the Government bank inspector.

PERU.

MINING CLAIMS.—A recent decree September 1, 1922, puts into force certain regulations which are intended to strengthen the existing law and absolutely prevent persons who have denounced mining claims, but have not entered upon the possession of them, from repeatedly denouncing the same claim.

URUGUAY.

TELEGRAPH TAX.—The President signed a law fixing a tax of one-half per thousand on telegraphic or telephone drafts, money orders, or drafts sent to or received from foreign countries. The tax will be paid quarterly by banks, exchange offices, and similar institutions.

INTERNATIONAL TREATIES

ARGENTINA.

PAN AMERICAN POSTAL CONVENTION.—The Argentine Ministry of Foreign Affairs has issued a decree approving and ratifying the principal convention of the Pan American Postal Union and the agreements adopted at the congress held in Buenos Aires in September, 1921, regarding parcel post and postal money orders.

ARGENTINA-ITALY.

LABOR INDEMNITIES.—It is announced that the Government of Italy has promulgated the agreement relative to indemnities for labor accidents entered into with the Argentine Government several years ago.

ARGENTINA-COLOMBIA.

EXTRADITION TREATY.—A treaty of extradition was signed in Buenos Aires on August 28, 1922, by representatives of Colombia and the Argentine Republic.

BRAZIL-PORTUGAL.

TREATY OF COMMERCE.—Dr. Barbosa de Magalhaes, Portuguese Minister of Foreign Relations, was expected to leave Lisbon for Rio de Janeiro on August 21, with the object of concluding a treaty of commerce between Brazil and Portugal. The bases of the treaty have been already drawn up by a special commission appointed for the purpose.

COSTA RICA-GREAT BRITAIN.

ALVARADO-BENNETT CONVENTION.—His Britannic Majesty, King George V, has approved the Alvarado-Bennett Convention as amended by the Congress of Costa Rica. This convention provides for arbitration of the Royal Bank of Canada and Amory claims, as stated in the *Bulletin* for October. (*Diario de Costa Rica*, September 14, 1922.)

HONDURAS-NICARAGUA-SALVADOR.

TREATY BETWEEN HONDURAS, NICARAGUA, AND SALVADOR.—The Presidents of Honduras, Nicaragua, and Salvador, with their respective Ministers of Foreign Affairs met on board the U. S. S. *Tacoma*,

in the Gulf of Fonseca, on August 19 and 20, 1922. The ministers of the United States in the three Republics named were also present. The following treaty was drawn up and signed:

In the waters of the Gulf of Fonseca, aboard the *Tacoma*, a war vessel of the United States of America, on the 20th day of the month of August of the year 1922, the undersigned Presidents of the Republics of Honduras, His Excellency Señor don Rafael López Gutiérrez; of Salvador, His Excellency Señor don Jorge Meléndez; and of Nicaragua, His Excellency Señor don Diego Manuel Chamorro, who have assembled in this conference, moved by the desire to seek the most efficacious friendly means to remove all of the causes which may have caused the unrest which has disturbed Central America in recent years, after frank discussion of all matters relating to the political conditions in the three countries and to their other vital interests; in the presence of Their Excellencies the Hon. Franklin E. Morales, minister of the United States of America to Honduras; the Hon. Montgomery Schuyler, minister of the United States of America to Salvador; the Hon. John E. Ramer, minister of the United States of America to Nicaragua, who on this occasion represent the Government of the United States of America in evidence of the deep interest felt by that friendly Republic in having the lofty aims of this convention attained so as to cement actual and lasting peace:

AGREED:

First.—In view of the differences of opinion which have arisen as to the General Treaty of Peace and Amity signed in Washington by the five Republics of Central America on December 20, 1907, being in force and pending a revision of said treaty, they declare that, beginning from this date, the three States over which they preside shall regard the said treaty as being in force in everything that affects the relations maintained by the three Republics.

Second.—The three Presidents promise one another not to permit the political refugees from any one of the Republics to prepare in the territory of the others any armed invasion whatsoever of the other contracting States or to threaten the public peace in any other manner; and for that purpose they agree to apply rigorously Article XVI of the General Treaty of Peace and Amity mentioned in the preceding clause, binding themselves also to guard their respective frontiers in order to prevent the said invasions.

Third.—In case that any one of the States should be actually invaded from one of the other two signatories of this convention, the government of the State in whose territory the invasion was prepared shall be obligated immediately to send forces to the disturbed frontier for the purpose of cooperating within its territory to the reestablishment of normal conditions, and to that end shall capture and disarm the offenders to whom Clause XVII of the General Treaty of Peace and Amity above mentioned shall be rigorously applied. They undertake also, without any other restrictions than those resulting from the constitutions of the respective countries, to expel from their territory, in case of such invasions, the guilty leaders of the invasions, provided it be requested by the government of the Republic which may be invaded. It is understood that this provision shall be applied even to invasions which may have taken place previously in any one of the three Republics and caused the unrest which has brought about this conference.

Fourth.—The three signatory Presidents agree not to accept in the armies of their respective Governments the political refugees of any of the other Republics, nor to appoint them to any office that may carry military authority. They assume the same obligation with respect to the nationals of the three Republics or other individuals who may have incited invasions, even though they may not be political refugees. If the State's own nationals are involved, guilt must be proved in a satisfactory manner by the offended government in order to obligate the others.

Fifth.—The three signatory Presidents desiring further to promote rapprochement between these countries in the sense of a practicable way which may lead to the ideal of the Central American Union, cherished by all three, will call a conference to be attended by the respective plenipotentiaries of the five Governments of Central America for the purpose of deciding upon measures, such as free trade, unification of currency, unification of the tariff systems, ways of communication and other measures guaranteed by friendly treaties, which would tend to make really practicable, in a future already prepared, the political unification of Central America. For that purpose the month of December next is fixed for a preliminary conference, the object of which will be to determine what form the studies made in each country shall take relative to the realization of the above mentioned measures. The place where this preliminary conference will be held shall be decided upon by agreement made among the foreign offices of the Central American Republics. The purposes of this conference shall not be modified except by unanimous consent of the contracting parties.

Sixth.—The Presidents of Nicaragua and Salvador agree to endeavor to secure from their respective Governments the granting of free trade in the natural products of their respective States and also in goods therein manufactured from their own raw materials. Whatever may be accomplished on this point shall be by way of experiment, and an effort will be made to establish the system of free trade on January 1st of the coming year 1923 for a period of one year.

Seventh.—Actuated always by the same spirit of concord which has inspired this convention and in order to make effective their purpose of maintaining peace in Central America, putting aside all differences of opinion which might turn into active causes of trouble, the signatory Presidents agree to submit to arbitration all disputes now existing, or which may arise among the signatory Republics, over boundary questions, the interpretation of treaties, and any other matters which may give or have given rise to discussions or dissension among them. The preliminary conference of the plenipotentiaries referred to in clause V shall establish the form and organization of the arbitration. The boundary question between Honduras and Nicaragua is excepted from the stipulations contained in this clause, each one of the interested parties reserving the right to maintain the legal position it has thus far maintained.

Eighth.—In their desire that the benefits of assured peace which may be derived from this conference shall extend to all of Central America the three contracting Presidents shall invite the Presidents of the Republics of Costa Rica and Guatemala to adhere to this convention. The mere notice from either one of the two Presidents referred to, of Costa Rica and Guatemala, that he has accepted this Convention shall be held sufficient to make him a signer of and party to it.

As recording the whole covenant they now sign six identical copies with the assistance of their respective Secretaries of State for Foreign Affairs and in company with Their excellencies the ministers of the United States of America to Nicaragua, Salvador, and Honduras above named.

(Signed)

R. LÓPEZ G.
JORGE MELENDEZ.
DIEGO M. CHAMORRO.
FRANKLIN E. MORALES.
MONTGOMERY SCHUYLER.
JOHN E. RAMER.
F. BUESO.
ARTURO R. ÁVILA.
CARLOS CUADRA PASOS.

The conference referred to in the fifth article will take place in the building of the Pan American Union, Washington, beginning December 4, 1922—the third international conference to meet within a little more than a year in that beautiful and historic edifice.

As host to the conference, the Government of the United States has sent out invitations to the Republics of Costa Rica, Guatemala, Honduras, Nicaragua, and Salvador, all of which have signified their intention of being represented. The delegates are: Costa Rica—Dr. Octavio Beeche, minister of Costa Rica in the United States; Sr. José Andreas Coronado, minister of foreign affairs; and Sr. J. Rafael Oreamuno, consul general in New York, secretary of the delegation. Guatemala—Sr. Francisco Sánchez Latour, minister of Guatemala in the United States, and Sr. Marcial Prem. Honduras—Dr. Alberto Uclés, formerly minister of foreign affairs; Sr. Carlos Lagos, formerly minister of war, first designate to the presidency; Dr. Salvador Córdoba, formerly consul in New York; and Sr. Raúl Toledo López, formerly chargé d'affaires of the legation of Honduras in France. Nicaragua—Sr. Emiliano Chamorro, minister of Nicaragua in the United States; Sr. Adolfo Cárdenas, minister of finance; and Dr. Máximo H. Zepeda, formerly minister of foreign affairs. And Salvador—Dr. Francisco Martínez Suárez, president of the supreme court of justice, and Dr. Hector David Castro, formerly secretary of the legation of Salvador in the United States.

PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

TEACHERS' DAY.—The "Día del Maestro" was celebrated in Argentina on September 11 with special homage to Sarmiento, the famous Argentine educator and statesman of the past generation. Exercises were held in the schools all over the country.

ARBOR DAY.—The school children of Buenos Aires on Arbor Day planted trees on the Calle Palos, where the national anthem and the Hymn to the Tree were sung. As Arbor Day fell on September 7, the centennial of Brazilian independence, the Brazilian hymn was included in the program.

COMMERCIAL SCHOOL ALUMNÆ.—The alumnæ of the commercial school for girls have formed an association in conjunction with the present students for the purpose of improving the school, the position of its graduates, increasing the library, and generally promoting good school conditions.

BRAZIL.

PRIMARY INSTRUCTION IN PARANÁ.—According to the report of Prof. Cesar Martinez, inspector general of instruction in the State of Paraná, the 1921 educational statistics in that State were as fol-

lows: Throughout the State there were 459 separate schools in operation, with a total attendance of 22,975 pupils. As a general rule the teaching day in these schools runs from 12 to 4.30 p. m. In some, however, the work is carried on from 8 a. m. to 12 m. Besides these separate schools there were 27 school groups in operation. The groups in which the greatest development was attained were the following: Xavier da Silva, 638 pupils; Ponta Grossa, 595; Paranaguá, 467; Rio Branco, 441; Dezenove de Dezembro, 406; Tiradentes, 387; and Oliveira Bello, 368. Referring to foreign and private schools, the report states that the total number of registrations in private schools reached 9,664 in the primary and intermediate grades of the State. There were in all 36 private schools of primary and secondary instruction, of which 1 was for girls, 13 for boys, and 22 coeducational. The total number of private schools was 54, of which 14 were in the capital, Curityba.

CHILE.

ONE HUNDRED AND NINTH ANNIVERSARY.—The Instituto Nacional, the first secondary school founded in the country, has celebrated its one hundred and ninth anniversary. The class which graduated five years ago held its first reunion at this time.

EDUCATION WEEK.—The National Education Association has decided to institute an education week, in which the Government, the school authorities, and all teachers will be asked to collaborate.

NAVAL SCHOOL.—On August 5, 1922, the Naval School of Chile, situated at Valparaiso, completed the one hundred and fourth year of its existence. This school corresponds to the United States Naval Academy at Annapolis.

COLOMBIA.

PRIMARY AND SECONDARY SCHOOLS IN BOYACÁ.—In 1921 there were 513 public primary schools in the Department of Boyacá, 226 of which were city and 287 rural. The total registration in these schools was 27,090, of which number 8,890 boys and 5,647 girls were registered in the city and 7,516 boys and 5,037 girls in the rural schools. The number of pupils who attended regularly was 7,081 boys and 4,628 girls in the city and 5,888 boys and 3,790 girls in the rural schools.

Out of the 515 primary schools of Boyacá, 138 are taught by normal graduates and 375 by nongraduates, and 240 have State-owned school buildings. Out of the 827 pupils who received primary instruction in private schools, 479 were boys and 348 girls.

In 1921 there were 21 private secondary schools with an attendance of 1,271 pupils of both sexes. The only official secondary school is the Boyacá School, in the town of Tunja.

COSTA RICA.

HEREDIA SCHOOL REPORT.—The inspector of primary schools of Heredia presented a report on his district which showed that the number of school registrations was considerably larger than in previous years. One of the main efforts of the inspector has been to establish a circulating library for the aid of teachers. Eleven schools have *patronatos* or societies which aid poor or sick pupils and supply extra equipment for the schools. Special courses in handwork have been given free at the San Antonio School, and classes in domestic arts, cooking, and manual training are also being given. The schools of Barba and San Joaquín have established free school lunch rooms for the benefit of poor children. Ten schools had a total of 11,235 square meters planted in maize.

LICEO DE COSTA RICA WIRELESS STATION.—The wireless station of the Liceo de Costa Rica is being installed. After its completion the students will learn wireless telegraphy.

CUBA.

BUSINESS SCHOOL.—A change has been made in the curriculum for the academic courses to be given during the term 1922-23 in the business school annexed to the Institute of Secondary Instruction, which will permit those students who aspire to a teacher's certificate to complete their studies without undue effort in three years instead of four, as called for by the old curriculum.

DOMINICAN REPUBLIC.

RADIOTELEGRAPHY.—The Haina Instruction Center is cooperating in giving a special course in radiotelegraphy, which is open to the public.

ECUADOR.

PHARMACY SCHOOL.—A society known as the Asociación Escuela de Farmacia has been formed in Guayaquil for the purpose of holding scientific conferences, founding a library of scientific works by means of donations from the members or other interested persons, establishing a botanical garden and chemical and pharmaceutical laboratories, and bringing about improvements in the study of pharmacy.

ENGINEERING COURSE.—The Department of War and Navy is holding a special engineering course for student officers of the grade of sublieutenant or sergeant up to captain, inclusive. Thirty will take the course at one time, each course being completed in three semesters. The first semester covers mathematics, physics, chemistry, topography and drawing, fortifications, and construction. The second semester includes roads and hydraulic construction with plans, and the third

semester advanced work in the same studies. The practical side of the course contains telegraphy, of both kinds, signaling, topographical elevations, sapping and mining; telephony; pontoons and fluvial communication; fencing and equitation; electric projects; and railroad and funicular railroad construction. The Chief of the Italian Military Mission will have general charge of the course.

SCHOOLS.—The President's message read before Congress on August 10, 1922, stated that there were 1,358 Government schools, 159 municipal schools, and 185 private schools, making in all 1,697, attended by 187,296 pupils.

GUATEMALA.

SCHOOL APPROPRIATIONS.—Authorization has been given by the President to the following municipalities for their respective appropriations for school equipment and furniture: Municipality of Panajachel, Sololá, 1,770 pesos from the liquor tax; Santa Lucía Utalán, Sololá, 6,176 pesos from the same source; San Marcos la Laguna, Sololá, 500 pesos; San Luís Tolimán, Sololá, 3,000 pesos; and Patzité, Quiché, 6,000 pesos for the completion of a school building. The city of Quezaltepeque is authorized to spend 6,500 pesos on school furniture and equipment, and the municipality of Tolonicapán, 50,000 pesos for the completion of its girls' school.

SCHOOL IMPROVEMENTS.—A fine swimming pool for public school children is being built near the outdoor gymnasium in Parque Minerva, Guatemala City. The pool, 36 by 23 feet, is of concrete, roofed with zinc, and has a surrounding platform laid with mosaic and provided with benches. As the walls do not extend to the roof, the air can circulate freely.

The preparatory school being built as an annex to the Instituto Nacional de Señoritas, which is located in the old Belén Convent, is of reinforced concrete and of ample size for present and future needs.

MEXICO.

AMERICAN TEACHERS IN THE UNIVERSITY OF MEXICO.—During the months of July and August, 1922, about 500 American teachers availed themselves of the courses offered by the University of Mexico. As already described in the BULLETIN, these courses consisted of the study of the Spanish language, the history of Mexico and Latin America in general, archæology, and art. Pleasure trips to different towns and points of interest in the country are included in these courses, the Government of Mexico granting many privileges to the travelers.

SCHOOL EXPOSITION.—The Department of Public Instruction continues its preparations for the great exposition of products manufactured in the industrial schools under its direction. The object

of this exposition is to promote the manufacture of articles which can be produced in the country at a lower price than those imported.

VOCATIONAL SCHOOL FOR WOMEN.—A vocational school for women has been established in Puebla where the following classes are given: Embroidery in white and colors; upholstery; the making of linen articles; sewing; dressmaking; and book-binding.

NEW CENTERS OF EDUCATION.—The Department of Public Instruction has concluded a contract with the government of Oaxaca for the federalization of education in that State. In accordance with this contract 809 rural schools for both boys and girls will function in Oaxaca and 240 for only one sex; 90 elementary vocational schools, 64 advanced primary schools, 63 elementary schools of all grades, and 46 advanced primary rural schools, all of which will be maintained by an appropriation of 1,000,000 pesos.

PARAGUAY.

TEACHERS' EXAMINATIONS.—By Article VIII of a law on public instruction, the board of education has established a ruling that teachers ranked in the fourth class may acquire the standing of elementary normal teachers after passing an examination.

SALVADOR.

TRADE SCHOOL FOR GIRLS.—Among the labors of the women's committee for the relief of flood victims, as mentioned in last month's BULLETIN, is the establishment of a trade school for girls who were sufferers from the catastrophe. For the present the school, which will furnish the pupils with the mid-day meal, will teach only the trade of dress-making. Later it is planned to include other occupations in the curriculum and to open the school not only to those who are flood sufferers, but to others who need to learn to be self-supporting. Funds from Mexico have helped to make the school possible.



ARGENTINA.

SALE OF OPIATES.—The board of health of Córdoba Province has made a ruling that all drug stores or pharmacies whether in the city or country are to carry a list of the stocks and sales of opiates, their alkaloids and salts; recognized solutions and preparations of similar substances; cocaine, salts or derivatives; sulphuric ether, prepared

ether products, and Indian hemp (hasheesh) and its derivatives. At the end of each month these lists are to be sent to the general drug inspection bureau and must show that sales were made upon the prescription of physicians, whose names are given in the list.

PAN AMERICAN CHILD WELFARE CONGRESS.—(*Tercer Congreso Americano del Niño*).—Dr. Benito Sorin, one of the Argentine delegates to the congress held in Rio de Janeiro, read an interesting paper on Infantile Neuropathology and Señora Teodelina Lezica Alvear de Uriburu, Argentine delegate of the Charity Association of Buenos Aires, stated that she brought the greetings of an association almost a century old. A report of the medical work of this organization was made by Dr. Madrid Páez.

In the pedagogical section a paper was read by Prof. José D. Calderaro of the model school of Buenos Aires on child personality. It concluded with the statement that the ideals and preoccupations of child life are characteristically infantile and must be recognized as such, and that the school should endeavor to preserve for adult life the optimism which is the dominant note of childhood. (See item below on this page, and page 631.)

FRENCH PROFESSOR OF MEDICINE.—The medical school of Buenos Aires has engaged Dr. Pierre Abrami to deliver a series of lectures, the first of which was on "Investigations in the pathogeny of malaria."

BRAZIL.

CHILD WELFARE CONGRESS.—The opening sessions of the Third Pan American Child Welfare Congress and the First Brazilian Congress for the Protection of Childhood were held jointly on August 27 in the Municipal Theater, Rio de Janeiro, attended by President Pessoa, national and foreign delegates, and other prominent persons. Addresses were made by Dr. Olyntho de Oliveira, president of the Third Pan American Child Welfare Congress; Dr. Moncorvo Filho, president of the First Brazilian Congress for the Protection of Childhood; delegates from the Republics of the Americas; Dr. Alfredo Ferreira Magalhães, delegate of the State of Bahia, who spoke for the delegates of the States of Brazil, and other authorities.

The regular sessions of both congresses commenced the following day. The different sections of the First Brazilian Child Protection Congress were sociology and legislation, pedagogy, medical treatment of children, and hygiene. Owing to the great number of papers prepared on these subjects it was decided that each delegate should give a brief oral résumé of his conclusions.

In various sections a number of especially important points were brought out. Under the public assistance or charity section the teaching of the care of babies in public schools was discussed; and under hygiene, open-air schools as means of combating tuberculosis

in children. Films showing the extent of child-welfare work done in Brazil were exhibited, including views of the Nictheroy Institute for the Protection of Childhood, founded by Dr. Almir Medeira; 1,200 meters of films showing the Institute for the Protection of Children in Rio de Janeiro, founded by Dr. Moncorvo Filho for heliotherapy (sun baths); the São Paulo institute for children of tubercular parents; and the Red Cross Children's Hospital of São Paulo.

The delegates to both congresses visited the Oswaldo Cruz Institute, where they were welcomed by Dr. Carlos Chagas, who dwelt upon the importance of the two congresses.

Dr. C. C. Carstens, director of the Child Welfare League of New York, attended the conference as a United States delegate, bearing the names and credentials of 39 societies and organizations of North America desiring to become member organizations of the congress. The next Pan American Congress will be held in Santiago, Chile, in 1924.

CHILE.

THIRD PAN AMERICAN CHILD WELFARE CONGRESS.—Chile's representatives at the recent congress in Rio de Janeiro (an account of which will be found on page 630 of this number) were Dr. Cora Mayers, physician in charge of the milk stations of the Patronato de la Infancia of Santiago, a summary of whose annual report was given in last month's BULLETIN; Dr. Eugenio Cienfuegos, a pediatricist connected with the Arriarán Hospital; Dr. Oscar Muñoz Garriga, professor in the Child Culture Institute; Señorita Elvira Santa Cruz, who has rendered valuable services in the School Charity Society; and Dr. Guillermo Martínez, a prominent physician.

RED CROSS.—The Cauquenes chapter of the Red Cross, now in its second year, has a balance on hand of 4,000 pesos, which it proposes to use with additional funds in establishing a children's ward in the city hospital.

WAYWARD GIRLS.—Many of the Chilean correctional institutions for girls are in charge of the nuns of the Good Shepherd, that in Santiago housing 300 girls, 200 of whom were sent to the school by their parents. Instruction in trades and the usual school branches is given. The Santiago school was founded in 1855.

FACTORY INSPECTION.—The Labor Bureau has been making an inspection of the Santiago factories as to hygiene, wages, social welfare, observation of labor laws, and general labor conditions. Each case reported adversely has been taken up individually by the head of the bureau, and as a result many improvements have been made. In connection with the observance of the law requiring factories employing more than 50 women operatives to maintain day nurseries for infants, one factory was found which opens its nursery to children up to 5 or 6 years of age.

THEATER FOR WORKMEN.—A theater for workmen, situated in the San Eugenio district of Santiago, has been constructed and opened under the auspices of the Upper Housing Council.

ARTISANS' EXPOSITION.—It is planned to hold in Santiago either in December or January an exposition of the work of Chilean artisans in cabinet and glass making, ceramics, weaving, sewing, printing, and all other trades in which art may be applied.

BOY SCOUTS AND BIRDS.—In the early spring the Santiago boy scouts carried out their annual bird festival, placing hundreds of bird houses in the Parque Forestal. Many spectators were present.

CONGRESS OF RAILWAY WORKERS.—The National Congress of Railway Workers, held in August, adopted a constitution for the railway union, the largest labor organization in the Republic. The first section is entitled "Aspirations to be realized," Article I reading as follows:

The defense and improvement of the economic, moral, technical, and social condition of railway employees, and their preparation to assume the direct conduct of the industry, in accordance with the principle that the instruments of labor belong to the workers.

Both men and women are eligible for membership, but it is provided that any one selling liquor, conducting a gambling house, or otherwise engaging in the exploitation of vice shall lose his membership.

COLOMBIA.

CAMPAIGN AGAINST ALCOHOLISM.—The National League Against Alcoholism has just published its statutes, which have been favorably received by the public and the press. This institution includes all the temperance leagues that already exist and any future ones that may be organized.

The purposes of the league are: To regenerate physically and morally the victims of intemperance by providing them with places of recreation, restaurants and cafés; to propose laws by which intemperance may be decreased and cooperate in their enforcement; and to work for the establishment of prohibition throughout the country.

IMPROVEMENTS BY THE SÁBANA RAILWAY.—The manager of the Sabana Railway has directed many improvements in the Central Station of Bogotá. A complete equipment against fire has been installed; an emergency clinic in charge of a doctor and various nurses has been opened; and sanitary houses have been built for the laborers, so that within three months they will have quarters near the station.

COSTA RICA.

HEALTH PARADES.—As part of the celebration of the one hundred and first anniversary of Costa Rican independence from Spain the city of San José held a health parade of children who marched or rode in carriages from Plaza de la Merced to Parque Morazán. Along the route they collected money for the fresh-air camps for sickly children to be built at Cartago. In Cartago the Jesús Jiménez High School opened a *Copa de Leche*, the cup of milk lunch for poor school children, as the first feature of its health parade.

ECUADOR.

MEDICAL SOCIETY.—The Medical and Surgical Society of Guayaquil recently held three interesting meetings, one covering chronic appendicitis; the second in the Maternity Hospital; while at the third there was a lecture on laboratory experiments in the transmission of diseases.

SANITARY HOUSING LECTURE.—Recently the Director of the Public Health Service addressed the carpenters' union on the subject of sanitary housing. The lecture, which was illustrated, was very well received.

ECUADOREAN RED CROSS COMMITTEE.—The Ecuadorean Red Cross Committee has decided to request the President of the Republic to give them recognition so that they may accept the land offered by Dr. Alejandro Villavicencia Ponce in Machachi to found a sanitarium.

MEXICO.

HEALTH MESSENGER.—A new exchange, the *Mensajero de Salud* of the Department of Public Health, has recently reached the library of the Pan American Union. It is a most practical and interesting semimonthly publication, the articles being written in a popular style, often in the guise of a story. One recounts the sad fate of a village belle who ran away from the authorities desiring to vaccinate those who had been exposed to smallpox, and who later, frightfully disfigured and partially blinded from the disease, mournfully watched her successful (and vaccinated) rival leave for her wedding with a prosperous young printer.

One cover is devoted to a cartoon of Our Candidate (the Mexican Baby), the surrounding crowd bearing standards reading, "Hurrah for the hero of the future!" "Honor to the perfect citizen!" "Three cheers for the vigorous, strong, and healthy Mexican!" "Hail to our country's preserver!" "Whoever mistreats a child deserves to be hanged," and similar legends.

Another cover depicts graphically the progress of flies from a dirty patio inhabited by many animals into the unscreened kitchen, while a third represents the street vendor of ice cream cones, his wares powdered with dust and germs.

Much of the contents is devoted to child welfare, but adult health is not neglected.

A FAMILY WELFARE EXPOSITION.—The Federal Department of Agriculture, of which Sr. don Ramón P. de Negri is chief, is developing a comprehensive program for the advancement of the interests and enrichment of the life of the country people who form the bulk of Mexico's population. One project in which it is deeply interested is a family welfare exposition, which is to make the rounds of the villages in selected districts in two cars especially granted for the purpose by the President of the Republic. Among other popular features of the exposition will be a portable playground for the children, outdoor picture shows and phonograph concerts, story hour, a large collection of posters on the welfare of the rural family, and simple talks on hygiene, child care, food values, and community activities. (*Weekly News Summary, United States Children's Bureau.*)

SANATORIUM FOR JOURNALISTS.—The inauguration of three of the new buildings for the employees of the editorial departments of the Republic will take place on January 2, 1923. One of these buildings will be occupied by the administration; one will be a clinic; and the other a maternity ward, built by the donations of the oil companies. Both the clinic and the maternity ward have been furnished by a group of distinguished ladies.

SOCIETY FOR THE PROTECTION OF INDIGENES.—An association has been organized under the name of "Esfuerzo Mundial" for the protection of the Spanish-speaking indigenes. Its aim is to defend racial interests and at the same time serve as a philanthropic and progressive association. One of its purposes is the establishment of libraries, playgrounds, athletic fields, vocational schools, and other beneficial institutions that time and experience may show advisable.

NICARAGUA.

SANITATION NOTES.—In accordance with a Government decree all school children are required to present health certificates from the public laboratory upon entering the schools. The schools are to be visited to see that the rule is being rigidly enforced.

The Sanitary Laboratory of Managua, under the direction of a bacteriologist, is giving the Wassermann and other tests.

It is reported by the press that a similar laboratory is to be established in Granada which will test blood and sputum in the search for the malaria germ.

WARNING TO QUACK DOCTORS.—The Office of the School of Medicine, Surgery, Pharmacy, and Dentistry of Oriente and Mediodía has

issued a summons to all persons not holding a diploma in medicine to appear before the board of physicians for examination in order to prove their qualifications to practice. Persons qualifying to treat sickness must renew their licenses every two years, while those not qualified will be prosecuted by law.

ASYLUM LIBRARY.—The Orphans' Asylum of León has begun the collection of a library suitable for the recreation and guidance of its young wards.

PANAMA.

COLÓN FREE CLINIC.—Maj. Henry Goldthwaite, acting health officer in Cristóbal, has issued a report of the Cristóbal Women's Club work done for the Free Clinic of Colón in August. Over 2,000 persons attended the clinic, 1,000 of whom were surgical and medical cases. Homes of sick babies were visited and 500 persons vaccinated. The official figures are: Medical cases, 557; surgical cases, 506; eye, ear, nose, and throat cases, 274; baby cases, 489; prenatal, 67; dental, 130; visits to homes of sick babies, 105; a total of 2,128 cases. Small-pox vaccinations numbered 465; vaccination cards issued, 150; specimens to laboratory, 126; Wassermann tests to laboratory, 22; patients referred to private physicians and hospitals, 78; persons served in soup kitchen, 2,017; visits in cases of communicable diseases, 110; visits to babies and revisits for vaccination, 150; and visits to schools, 5.

SOUP KITCHEN.—The soup kitchen started in Panama City last year when work was scarce and many people were hungry was about to be closed, when the Rotary Club came forward with a pledge to maintain it for six months. It serves children and the aged poor.

RED CROSS.—Miss Enriqueta Morales, Director of the Panama Red Cross, recently addressed the Rotary Club asking their help for the National Red Cross organization, which besides maintaining an orphan asylum now sheltering 45 children, searches out illness, misery, and suffering, to aid such cases as effectively as possible.

MILK.—See page 611.

PARAGUAY.

DONATION TO THE RED CROSS.—The National Association of Charitable Women has donated to the Paraguayan Red Cross a piece of property in Asunción valued at 120,000 pesos, for the purpose of building a hospital and a dispensary for tubercular patients.

PERU.

PROFIT SHARING FOR FARM LABORERS.—The owner of a large estate in the Chicama Valley has announced that in addition to the usual wages he will distribute this year among his employees a bonus of 5 per cent of the profits and in the following years 50 per cent. He will also establish a savings bank.

S. P. C. A.—The Peruvian Society for the Prevention of Cruelty to Animals has made arrangements for a hospital for animals suffering from illness or accidents. The police department of Lima is cooperating both in furnishing facilities and in bringing in animals.

LABOR AND SOCIAL WELFARE COUNCIL.—On August 13 took place the formal inauguration of the new Labor and Social Welfare Council, whose establishment was mentioned in the August issue of the BULLETIN. Of the 22 members, 7 were elected by the labor unions, and represented the miners, factory employees, workers in small industries, maritime workers, land transportation workers, agricultural workers, and commercial employees. An eloquent speech was made by the representative of the agricultural workers, Sr. Juan H. Tebes, who closed with the following words, addressed to the President of the Republic:

Therefore, Your Excellency, we believe that charity and alms, the political theory of labor held by your predecessors, according to which the hopes and needs of labor were attended to with the disdainful gesture of a *gran señor* towards his followers, have passed into the limbo of historical anomalies never again to return; and we understand that with the attempt of your Government to incarnate the principles of social equity and justice in the organizations which you have created for that purpose, you have initiated a new era for the rights of the worker, characterized by greater justice and increased harmony with the modern tendencies having as their ideal a perfect equilibrium in the division of production between its only two sources, labor and capital.

The President expressed his belief that the council, which acts as an advisory body, will, by means of the vision, experience, and altruistic sentiments of its members, be able to formulate the plans needed for the welfare of Peruvian workers.

SANITARY INSPECTION.—The municipal council of Lima has created a new section in its health department which will have charge of inspecting the houses and other buildings of the city, block by block, and seeing that they are put into a thoroughly sanitary condition.

PURE MILK IN LIMA.—See page 613.

SALVADOR.

ROCKEFELLER FOUNDATION.—Dr. F. A. Lambert, of Yale University, sent by the Rockefeller Foundation, has been giving a series of lectures in the University of San Salvador on different diseases, such as cancer, which he illustrated with lantern slides. The Rockefeller Foundation, according to La Prensa of San Salvador, is offering a donation of \$1,000,000 to the best University of Central America.

GOTA DE LECHE (FREE MILK STATION).—The free milk station of Santa Ana had been in operation about two months when the press reported that already the babies whose mothers were taking advan-

tage of the milk and medical advice of the station were getting strong and healthy.

TUBERCULOSIS SERUM.—The French consul general in Salvador presented to the Ministry of Foreign Relations 80 tubes of tuberculosis serum sent to him from Paris as a gift for the Salvadorean Department of Health. Salvadorean physicians are anxiously awaiting the trial of this serum, which is supposed to arrest tuberculosis.

PURE FOOD REGULATION.—The Municipal Police Department of San Salvador is strictly enforcing the regulations covering the adulteration of milk and foodstuffs.

URUGUAY.

SOUTH AMERICAN HYGIENE CONFERENCE.—This conference, mentioned before in the BULLETIN, the Third Conference of Hygiene, Microbiology, and Pathology, held in conjunction with the medical pedagogy meeting, takes place in January, 1923. The organization committee has met and the Ministry of Foreign Relations has sent out invitations to the South American Governments and the members of the medical profession in each country to appoint delegates. The committee has communicated with the medical schools of Buenos Aires, Córdoba, Rosario, La Plata, La Paz, Rio de Janeiro, San Pablo, Bahia, Porto Alegre, Bogotá, Santiago, Quito, Asunción, Lima, and Caracas informing them of the agreement with the School of Medicine of Montevideo to hold the meeting in that city and requesting the presence of delegates.

HOSPITAL GALÁN Y ROCHA.—The architectural bureau of the Department of Public Works has approved the contract and plans for the building of a medical ward in the Hospital Galán y Rocha in Paysandú at a cost of 103,022.57 pesos.

VENEZUELA.

NATIONAL LIBRARY.—The new curator of the National Library has issued circulars to all the institutions of a similar character existing in the exterior, in which he announces his intention of maintaining the interchange of information established between them and keeping in touch with such corporations and individuals as, owing to their different activities, make particular use of library facilities.



GENERAL NOTES

ARGENTINA.

INTERNATIONAL LAW ASSOCIATION.—This association met to hold its thirty-first conference in Buenos Aires and consider many subjects of world-wide interest on widely diverse subjects. The University of Buenos Aires and many other official institutions entertained in honor of the foreign delegates, who spoke in terms of praise for the university, which is known in Europe as well as America.

Among the questions brought up at the conference were those of maritime law, jurisdiction in shipping contracts; aviation in war; legal status of married women; stolen bonds; international criminal courts; and other vital questions. The inaugural session was held in the Teatro Colón under the presidency of Dr. Estanislao S. Zeballos. Many distinguished persons from all over the world were present.

AMERICAN HISTORY CONGRESS IN BRAZIL.—Dr. Ricardo Levene, special delegate of the Instituto Historico y Geographico de Rio de Janeiro in Argentina, had charge of the Argentine representation to the History Congress, in Rio de Janeiro during September. He presented the works of José Manuel Elizaguirre; Clemente Ricci on Pre-Inca Civilization; his own on the Commercial Treaty between Brazil and the Viceroyalty of Río de la Plata; Roberto Lehmann Nitsche's "The Temple of the Sun at Cuzco;" Luis María Torres "Ethnographic and Geographic Studies of Azara," and many more.

GERMAN-ARGENTINE RELATIONS.—A meeting was lately held in Buenos Aires to found a German-Argentine club for the purpose of publishing German literature in Spanish and vice versa; to exchange scientific, literary, and artistic ideas; to exchange professors and lecturers; to found libraries and to promote as much intellectual interchange as possible.

DR. ALVEAR INAUGURATED.—Dr. Marcelo T. Alvear took office as President of Argentina on the *Día de la Raza*, October 12. He was accompanied from the Legislative Palace where he took the oath of office to the Casa Rosada (presidential mansion) by the retiring President, Sr. Irigoyen, and the members of his cabinet. President Alvear has returned from Europe a much fêted representative of his country, not only in Europe but in Brazil and Uruguay, where he stopped on his return journey. The nation welcomed him with great enthusiasm.

President, Harding was among the executives sending cordial messages to President Alvear on the day of his inauguration.

BRAZIL.

BRAZILIAN INDEPENDENCE CENTENNIAL.—On September 7, 1922, Brazil celebrated the centenary of her independence with elaborate patriotic exercises and the opening of the great International Exposition in Rio de Janeiro, which is to continue until March 31, 1923. Official representatives of 33 countries were present to offer the congratulations and good wishes of their respective Governments. The exposition grounds contain beautiful buildings which house national and foreign exhibits of all kinds that are proving a magnet to draw visitors from Europe and the three Americas. In connection with the centenary various congresses, both of a national and international character, marking the progress of civilization and world relationship, were held in Rio de Janeiro. Many distinguished delegates, including diplomats, students, and internationally known authorities, visited the Brazilian capital upon this occasion, meeting with the most cordial welcome, and expressed their admiration for the great nation which has just completed 100 years of peaceful development of her vast territory and national life. The congresses and other activities which took place at this time are described in other sections of the BULLETIN, which has given advance programs and accounts of the many interesting events.

Many Latin-American countries declared September 7 a national holiday in honor of Brazil, and held celebrations in their own capitals.

TWENTIETH INTERNATIONAL CONGRESS OF AMERICANISTS.—The opening session of the Twentieth International Congress of Americanists was held on August 20 in the Engineering Club of Rio de Janeiro. Dr. Simoens da Silva, president of the congress, in his inaugural speech said that preliminary activities in the collection of American historical data began in France in 1857, being carried on later in England, and leading to the First International Congress of Americanists in Nancy, in July of 1875. Scientists of Europe and the United States contributed to the development of the congresses which met subsequently in cities of Europe and the Americas.

During the regular sessions of the congress the following papers were among the many presented: Adolpho Hostos—Notes on West Indian hydrography in relation to prehistoric migrations; John R. O. Swanton—Southern contacts of the Indians north of the Gulf of Mexico; Manoel Gamio—Pedregal of San Angel; H. J. Spinden—Civilization and the humid tropics; João Coelho Gomes Ribeiro—Atlantis; H. T. Holmes—The paleolithic theory in America; Ales Hrdlicka—Antiquity of men in America; Carlos Xavier Paes Barreto—Paleontological and archaeological history of America;

Salvador Debenedetti—Successive aboriginal cultures in northeast Argentina; Manoel Gamio—Political anthropology; Mitchell Carrol—American and Mediterranean archaeology; Morales de los Ríos—Tapuia Karaiba. The official delegate of China presented a most interesting paper on the "Origins of Pre-colombian aborigines." Other memorable papers were those of the Portuguese representative, Senhor Duarte Leite, "Concerning Hojeda's 1490 voyage and the presumed expeditions of Diego de Lepe and Vellez de Mendonça in 1500." Sr. Max Grillo, Minister of Colombia, read a paper on "The perception of color among Indians."

CHILE.

SR. JULIO ZENTENO BARROS.—Sr. Julio Zenteno Barros, a justice of the Supreme Court, known and honored as a judge of spotless integrity, a learned lawyer and a man of wide culture, died last August. From his youth Sr. Zenteno Barros had given his life to the service of the Republic, his study of colonization being the authoritative report on that subject.

SR. ENRIQUE MACIVER.—On August 21 occurred the death of Sr. Enrique MacIver, since 1875 a member of congress, first as deputy, and since 1903 as senator, a councillor of state in the present administration and premier and minister of finance in that of President Montt. He was admired and respected for his gifts of oratory and for his liberal thought and sincerity, "the same for himself as for others," says the *Mercurio* of Santiago, "without fear of the conclusion when he believed the premises just."

RADIO BROADCASTING.—The electrical laboratory of the University of Chile is daily broadcasting by radio programs of music and current events which can be picked up at a distance of more than 100 kilometers. Besides the Government installations, there are many private wireless stations in Santiago, and a growing number in Valparaiso.

SECOND PAN AMERICAN CONGRESS OF ARCHITECTS.—This congress will meet in Santiago in 1923, according to the plans made by the first congress, held in Montevideo in March 1920. Three representatives to be appointed from each of the participating countries will commence preparations for the forthcoming congress.

CHILEAN PIANIST.—Sr. Juan Reyes, a Chilean pianist, is now in New York, where he has been well received at a concert in Aeolian Hall and at appearances in other places.

STATUE ERECTED IN CHILE TO THE MEMORY OF BOLÍVAR.—On the initiative of Don Tito Lisoni, a distinguished member of the Chilean Congress, and by the unanimous vote of both chambers, a law was passed providing for the erection of a statue to the memory of the great liberator, Simón Bolívar, in Santiago, Chile.

The President of Venezuela sent a cable to the President of Chile expressing his appreciation for the tribute of admiration and love paid to this hero of South American independence, of which he had been informed by a cordial message from the latter.

COLOMBIA.

ANNUAL EXHIBITION OF PAINTINGS.—The *Sociedad de Embellecimiento*, of Bogotá, has decided to hold an annual exhibition of paintings and has appropriated a sum for the purchase of one of the pictures exhibited in each exhibition, to be hung in the gallery of national paintings in the School of Arts. One of these exhibitions will take place shortly, after which some of the paintings will be sent to Paris, thus reciprocating the courtesy of the French artists who recently held an art exhibition in Bogotá.

DELEGATE TO CLINICAL CONGRESS OF SURGEONS.—Dr. Pompilio Martínez, one of the most prominent surgeons of Colombia, was appointed by the Colombian Government official delegate to the Clinical Congress of the American College of Surgeons held in Boston during October.

CUBA.

DR. JUAN SANTOS FERNÁNDEZ.—Cuba deeply regrets the loss of this distinguished ophthalmologist and hygienist, who died at the age of 75 in Habana. Doctor Fernández was a prominent member of the medical profession, in which he won international fame, and to him is attributed the introduction of the Pasteur treatment for rabies to America and the founding of several institutes and scientific laboratories. He was the editor of the *Crónica Médico-Quirúrgica* and also wrote for many other publications.

On the seventieth anniversary of his birthday, which was celebrated in 1917 in Habana, he was presented with a gold medal and received many national and foreign tributes to his fame.

POPULATION OF CUBA IN 1919.—The total population, including that of the Isle of Pines and a number of small islands and kays, numbered on September 15, 1919, the date of the last census, 2,889,004 inhabitants, which shows an increase of 840,024 in the last 10 years. The total number of towns having more than 1,000 inhabitants was 178, and of those having more than 8,000 inhabitants, 26.

The population of the 7 cities having more than 25,000 inhabitants was as follows: Habana, 363,506; Santiago, 62,083; Camagüey, 41,909; Matanzas, 41,574; Cienfuegos, 37,241; Marianao, 30,701; and Cárdenas, 27,477.

The urban population, including all the towns of over 1,000 inhabitants, numbered 1,290,955 in 1919, or 44.7 per cent of the total population.

The population of towns of 8,000 inhabitants or more was 873,914, or 30.2 per cent of the total population; and that of the seven cities of over 25,000 inhabitants, 604,491, or 21 per cent of the total population.

Of the total population of 2,889,004 inhabitants, 1,530,509 were men and 1,358,495 women, a proportion of 53 and 47 per cent, respectively.

HAITI.

DELEGATE TO THE LEAGUE OF NATIONS.—M. Dantes Bellegarde, Haitian delegate to the third assembly of the League of Nations held in Geneva last September, addressed the assembly eloquently upon several occasions.

HONDURAS.

POPULATION.—According to the figures of the Bureau of Statistics, from 1911 to 1921 there were 243,523 births and 134,547 deaths in the country, or a natural increase of population of 108,976 persons. The total population of the country on December 31, 1921, is given as 662,422.

PANAMA.

VICE PRESIDENTS.—Sr. Rodolfo Chiari, Gen. Ignacio Quinzada, and Gen. Nicanor A. de Obarrio have been elected first, second, and third Vice Presidents, respectively, of the Republic.

RESIDENT ARTIST'S WORK.—John de Paul, a resident of Panama, has recently completed a bust of Admiral Pedro Luis Brion, who was a friend of Bolívar and fought upon the sea for the liberty of *La Gran Colombia*. The bust is to be placed in the Plaza de Brion, Curaçao, the admiral's birthplace.

WAR MEMORIAL.—The memorial to heroes of the Great War erected opposite the Administration Building in Panama City was unveiled on November 11 with appropriate ceremonies.

SALVADOR.

MEXICAN LIBRARY GIFT.—The *Liceo Moderno* of San Salvador has received the gift of one of the libraries being sent out by the Mexican Minister of Public Instruction as a gift from Mexico to the neighboring republics. The collection contains scientific works as well as historical and other matter from the pens of Mexican authorities. The library has been named "*Biblioteca Vasconcelos*" in honor of the Mexican Minister of Public Instruction.

VENEZUELA.

DEATH OF DR. JOSÉ LADISLAO ANDARA.—The sudden death of Dr. José Ladislao Andara, Minister of Public Instruction, which occurred on September 1, 1922, in Caracas, was deeply felt throughout Venezuela. His life was devoted to the betterment of education and other activities connected with the progress of his country.

Doctor Andara was not only a distinguished statesman and orator, but a brilliant writer and journalist, and spent the latter years of his life in the study of Venezuelan history, being a member of the National Academy of History. He was also one of the signatories of the protocol to the Franco-Venezuelan treaty and the decree by which the Universidad Central of Venezuela was reestablished.

CLINICAL CONGRESS IN BOSTON.—The President of the Republic appointed Dr. Luis Razetti, a prominent Venezuelan, official delegate to the Clinical Congress of the American College of Surgeons which took place last October in Boston.



SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO OCTOBER 24, 1922.

Subject.	Date.	Author.
ARGENTINA.		
Imports of automobile tires into Argentina.....	1922. Aug. 22	W. Henry Robertson, consul general at Buenos Aires.
Radio Club in Rosario.....	Sept. 7	Wilbert L. Bonney, consul at Rosario.
Concession for gas plant solicited.....	..do....	Do.
Proposed construction of 10,000 dwelling houses for employees and workmen in Buenos Aires.	Sept. 13	W. Henry Robertson.
Munson Line minimum first-class passenger fares.....	Sept. 15	Do.
BOLIVIA.		
Commerce of Bolivia for 1920.....	Aug. 7	Dayle C. McDonough, consul at La Paz.
Bolivian imports for 1921, by classifications.....	Sept. 1	Do.
Bolivian loan.....	Sept. 9	Do.
July report on commerce and industries, general business conditions.	Sept. 10	Do.
BRAZIL.		
Cotton cultivation and Brazilian textile industry.....	Aug. 26	A. Gaulin, consul general at Rio de Janeiro.
Shipping conditions in Pernambuco, weekly report.....	..do....	C. R. Cameron, consul at Pernambuco.
Cotton shipments from Recife for seven months of 1922.....	..do....	Do.
Sugar shipments for first seven months of 1922.....	Aug. 29	Do.
Relative importance in overseas commerce of leading Brazilian ports, 1913, 1919, 1920, 1921.	..do....	Herndon W. Goforth, vice consul at Santos.
Coffee dispatched for the United States from Santos, July, 1922.	Aug. 30	Do.
Annual report of Chamber of Commerce of the State of Sao Paulo.	Sept. 1	Do.
Shipping movements at Santos for July.....	Sept. 2	Do.
Improvement in Bahia export trade.....	Sept. 4	Thos. H. Bevan, consul at Bahia.
Regulations governing the collection of the Brazilian income and dividend tax.	..do....	A. Gaulin.
Power of attorney in Brazil.....	Sept. 5	Do.
Important income tax decision of Brazilian Supreme Court.	..do....	Do.
The cotton industry (Bahia).....	Sept. 6	Thos. H. Bevan.
Sugar and cotton shipments from Maceio during the fiscal years 1920-21 and 1921-22.	Sept. 8	C. R. Cameron.
Coffee statistics, crop year ended June 30, 1922.....	Sept. 9	Herndon W. Goforth.
Foreign trade through the port of Santos, first 6 months of 1922.	..do....	Do.
Imports of rubber during August, 1922.....	Sept. 11	Geo. H. Pickerell, consul at Para.
Agricultural schools and experimental stations in the State of Bahia.	Sept. 14	Thos. H. Bevan.
New contract for telephone service in Federal district.....	..do....	A. Gaulin.
Brazil's importation of Portland cement.....	Sept. 15	Do.
Shipping movement at Rio de Janeiro during August, 1922.	Sept. 18	Do.
CHILE.		
Bolivian commerce through the Port of Arica.....	Aug. 21	Egmont C. von Tresckow, consul at Arica.
Principal articles exported during July, 1922.....	..do....	B. C. Matthews, vice consul at Antofagasta.
Business conditions in Chile during August, 1922.....	Aug. 31	C. F. Deichman, consul general at Valparaiso.
Commerce at Tarapacá during August, 1922.....	Sept. 4	Homer Brett, consul at Iquique.
Maritime notes from Iquique.....	..do....	Do.
Summary of Chilean imports and exports for 1919, 1920, and 1921 by articles.	Sept. 7	C. F. Deichman.
Chile's imports and exports by countries, for the years 1913 to 1921, inclusive.	Sept. 13	Do.
Mail-order business with Iquique.....	Sept. 22	Homer Brett.
Agricultural conditions in Chile.....	Sept. 23	C. F. Deichman.
COLOMBIA.		
The railroads of Colombia.....	Sept. 4	Maurice L. Stafford, consul at Barranquilla.
August report on commerce and industries.....	Sept. 9	Do.
Report on general conditions.....	Sept. 10	Augustus Ostertag, vice consul at Cartagena.
Imports at the port of Buenaventura for 1921.....	Sept. 11	Thomas McEnelly, vice consul at Buenaventura.
Proposed loan for railway and port improvements.....	Sept. 20	Maurice L. Stafford.
The market for American flour.....	Oct. 6	Augustus Ostertag.

Reports received to October 24, 1922—Continued.

Subject.	Date.	Author.
COSTA RICA.		
August report on commerce and industries.....	Sept. 11	Henry S. Waterman, consul at San Jose.
CUBA.		
Cost of protesting drafts in district.....	Sept. 9	Horace J. Dickinson, consul at Antilla.
Annual report on commerce and industries of Cuba for the year 1921.	Sept. 19	Charles Bailey Hurst, consul general at Habana.
Nationality of vessels carrying exports of Matanzas during 1921 and to Aug. 31, 1922	Oct. 2	James V. Whitfield, vice consul at Matanzas.
Sugar exports from all ports of Cuba during the period from Jan. 1, 1922, to Sept. 23, 1922.	...do....	Do.
Exportation of sugar from Matanzas to countries other than the United States during 1921 and to Aug. 31, 1922.	Oct. 5	Do.
DOMINICAN REPUBLIC.		
Consignment, bankruptcy, and insolvency laws.....	Sept. 27	W. A. Bickers, consul at Puerto Plata.
The market for American flour.....	Sept. 29	Do.
GUATEMALA.		
Credit and commercial information.....	Sept. 20	Arthur C. Frost, consul at Guatemala City.
Coffee quotations.....	Sept. 21	Do.
Revised tax on vehicles.....	Sept. 23	Do.
August report on commerce and industries.....	...do....	Do.
Inauguration of Guatemala-Mexican parcel post.....	Sept. 25	Do.
Contractors' requirements in Guatemala.....	Sept. 26	Do.
Market for confectionery.....	Sept. 28	Do.
Pumps and farm lighting plants.....	...do....	Do.
HAITI.		
Coffee, its cultivation and preparation for shipment....	Sept. 9	Robert Dudley Longyear, vice consul at Port au Prince.
Consignment laws, bankruptcy and insolvency laws....	Sept. 21	Damon C. Woods, consul at Cape Haitien.
HONDURAS.		
Report on sisal fiber.....	Sept. 12	K. Alexander, vice consul at Puerto Cortez.
August report on general conditions.....	Sept. 14	Robert L. Keiser, consul at Tegucigalpa.
Lease of public utilities in Tegucigalpa.....	Sept. 22	Do.
MEXICO.		
Entering of insurance companies for the transaction of business in Mexico.	July 20	Claude I. Dawson, consul general at Mexico City.
Report on vessels entered and cleared at the port of Frontera.	Aug. 30	R. L. Rankin, consul in charge.
Industries of the district.....	Sept. 28	C. H. Donaldson, consul at Torreon.
Increased building activities at Mexico City.....	Oct. 9	Thomas D. Bowman, consul at Mexico City.
NICARAGUA.		
Market for American flour.....	Sept. 19	Harold Playter, consul at Corinto.
The market for work clothing.....	Sept. 21	Do.
PANAMA.		
August report on commerce and industries, general conditions, etc.	Sept. 25	H. D. Myers, vice consul at Panama City.
New Army and Navy Y. M. C. A. building at Colon....	Sept. 29	Julius D. Dreher, consul at Colon.
PARAGUAY.		
The cattle industry in Paraguay.....	Sept. 15	Harry Campbell, consul at Asuncion.
URUGUAY.		
The advertisements of medicines.....	Sept. 14	David J. D. Myers, consul at Montevideo.
August report on commerce and industries.....	Sept. 26	Do.
VENEZUELA.		
Decree of Sept. 18, 1922, creating a customhouse in the port of Guanta.	Sept. 20	S. J. Fletcher, vice consul at La Guaira.
Production of tobacco in eastern Venezuela.....	Sept. 21	Thomas W. Voetter, consul at Caracas.
August report on commerce and industries.....	Sept. 25	S. J. Fletcher.
Coffee and cacao exposition at Caracas.....	Sept. 27	Thomas W. Voetter.
New knit-goods enterprise.....	...do....	Do.

BOOK NOTES

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(Continued from the November issue.)

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- Reglamento organizado de conformidade com as leis ns. 1,356 de 19 de dezembro de 1912 e 1,534 de 29 de dezembro de 1916. Escola agricola "Luiz de Queiroz" de Piracicaba. São Paulo, Tip. do Diario Official, 1919. pls. 32 p. 8°.
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CHILE.

- Anuario estadístico de la República de Chile. Minería y metalurgia, Año, 1919. Oficina Central de Estadística. Santiago de Chile, Soc. Imp. y Lit. Universo, 1921. 45 p. 8°.
- Chile y la aspiración de Bolivia a puerto en el Pacífico. [Ministerio de Relaciones Exteriores]. Santiago de Chile, Imprenta Universitaria, 1922. 160, (1) p. 12°.
- Elementos de jeografía. Nociones de la jeografía de Chile i de América. Por Luis Perez P. 3.ª edición. [Santiago de Chile], Imprenta Fiscal de la Penitenciaría, 1921. illus. xxi, 139 p. 12°.
- Inaugural address of his excellency, Don Arturo Alessandri, President of the Republic of Chile, read at the opening of the national congress, Santiago de Chile, June the first, 1921. Police Department Press of Santiago, Chile. 1921. 64 p. 8°.
- "Las relaciones de Chile y el Perú." Carta que el Illmo. Señor Obispo D. Rafael Edwards escribe al Excmo. Señor Sebastián di Pietro, Arzobispo de Daniarta. Santiago de Chile, Imprenta Chile, 1922. 32 p. 12°.
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- Memoria del Ministerio de Relaciones Exteriores, Culto y Colonización, Diciembre de 1915 Noviembre de 1919. Santiago de Chile, Imp. Lit. y Enc. "La Ilustración," 1920. 468 p. 4°.
- Mensaje leído por S. E. el Presidente de la República en la apertura de las sesiones ordinarias del Congreso Nacional. 1° de Junio de 1922. Santiago, Imprenta Fiscal de la Penitenciaría de Santiago, 1922. 106 p. 8°.
- Report on the industrial and economic situation in Chile, dated December, 1921. By Mr. W. F. V. Scott. Department of Overseas Trade. London. By His Majesty's Stationery Office, 1922. 102 p. 8°. Cover title.

COLOMBIA.

- El dolar de Colombia. [Por] L. E. Nieto Caballero. Bogotá, Tip. Moderna, 1922. 339 p. 8°.

COSTA RICA.

- Memoria de la Secretaria de Hacienda y Comercio correspondiente al año 1921. San José, Imprenta Nacional, 1922. xviii, 341 p. 8°.

Programas para . . . estudios. Primer a sexto años. Liceo de Costa Rica. Aprobados por la secretaria de instrucción pública. San José, Imprenta Nacional, 1921. 12°. 6 pamps.

CUBA.

Cultivo herbáceo de plantas arbóreas para producir abono verde y forraje. La "cassia siamea lamk" con aplicación del sistema a otros árboles, como "albizzia lebbek," benth, "brosimun alicastrum" SW., "trophis racemosa," urb. etc. Por Dr. Mario Calvino. Habana, Montalvo, Cardenas & Co., 1922. illus. 16 p. 8°.

Estudios biológicos sobre el polen. (Trabajo preliminar). Por la Sra. Dra. Eva Mameli de Calvino, Jefe del departamento de botánica de la experimental agronómica. 1922. 33 p. 8°.

Informe sobre aranceles e impuestos. Que somete al sr. presidente Dr. Alvaro Zayas, la comisión consultiva e informativa de aranceles e impuestos nombrada por decreto no. 2159 del honorable sr. presidente de la república de 25 de noviembre de 1921, publicado en la "Gaceta Oficial" de 30 del mismo mes y año. Habana, Imprenta "La Propagandista," 1922. fold. table. 158 p. 4°.

"Los arrowroots" o "feculas comestibles." Por el Dr. Mario Calviño, Director de la estación agronómica de Cuba. Extractado de la Revista de Agricultura, Comercio y Trabajo, Año V, Núm. 3, Mayo de 1922. Habana, Montalvo, Cardenas & Co., 1922. illus. 11 p. 8°.

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Constitution of the republic of Ecuador of December 23, 1906. [Mimeographed by the Pan American Union, June, 1922. Translated by The Carnegie Endowment for International Peace.] 23 p. 4°.

Defensa de la historia crítica del asesinato cometido en la persona del Gran Mariscal de Ayacucho. Escrita por Antonio José de Irisarri. Con prólogo y notas de Alfredo Flores y Caamaño. Santiago de Chile, Imprenta Universitaria, 1922. xl, 192 p. 12°.

Oil resources of Ecuador. By V. F. Marsters, 1922. Issued with Mining and Metallurgy, July, 1922. map. 6 p. 8°. half-title.

Quito Colonial siglo XVIII comienzos del siglo XIX, por Isaac J. Barrera. Quito, Imprenta Nacional, 1922. pl. map. 163 p. 4°. (Memorias de la Academia Nacional de Historia. Vol. 1.)

Solemne pronunciamiento de la capital de Quito y demás pueblos del Sur de Colombia, por el cual se constituye el Ecuador en Estado soberano libre e independiente. Año de 1830. [Por] J. Jijón y Caamaño. Quito, Imprenta de la Universidad Central, 1922. pls. 53, dxiii p. 4°. (Academia Nacional de Historia. Documentos para la historia, Tomo 1.)

MEXICO.

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- Constitución política del estado libre y soberano de Guerrero, que deroga la de 29 de noviembre de 1880, expedida por la xxiii legislatura constitucional de este mismo estado y promulgada el 6 de octubre de 1917. Segunda edición. Chilpancingo, Imprenta del Gobierno, 1920. 32 p. 8°.
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- Mexican petroleum. Description of properties of the Pan American Petroleum & Transport Co. (Feb. 2, 1916) and principal subsidiaries . . . and other data. New York, Published by the Pan American Petroleum & Transport Co., 1922. front. port. illus. map. xvi, 300 p. 8°.
- Reglamento del departamento del trabajo y de prevision social. Estado de Hidalgo. Pachuca de Soto, Imprenta del Gobierno del Estado a cargo de Donato Martinez, 1921. 10 p. 8°.
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**VALUES OF THE BASIC MONETARY
UNITS OF THE COUNTRIES OF
THE PAN AMERICAN UNION IN
UNITED STATES GOLD AND IN
PANAMERICANOS¹**

Country.	Standard.	Unit.	Value Pan-americanos. ¹	Value U. S. Gold.
ARGENTINA	Gold . . .	Peso . . .	4.82	\$0.965
BOLIVIA	Gold . . .	Boliviano .	1.95	0.389
BRAZIL	Gold . . .	Milreis . .	2.73	0.546
CHILE	Gold . . .	Peso . . .	1.83	0.365
COLOMBIA	Gold . . .	Peso . . .	4.87	0.973
COSTA RICA	Gold . . .	Colón . .	2.23	0.465
CUBA	Gold . . .	Peso . . .	5.00	1.000
DOMINICAN REPUBLIC	Gold . . .	Peso . . .	5.00	1.000
ECUADOR	Gold . . .	Sucre . . .	2.43	0.487
GUATEMALA	Silver . . .	Peso ² . .	2.53	0.507
HAITI	Gold . . .	Gourde . .	1.00	0.200
HONDURAS	Silver . . .	Peso ² . .	2.53	0.507
MEXICO	Gold . . .	Peso . . .	2.49	0.498
NICARAGUA	Gold . . .	Córdoba .	5.00	1.000
PANAMA	Gold . . .	Balboa . .	5.00	1.000
PARAGUAY ³	Gold . . .	Peso . . .	4.82	0.965
PERU	Gold . . .	Libra . . .	24.33	4.866
SALVADOR	Gold . . .	Colón . .	2.50	0.500
UNITED STATES	Gold . . .	Dollar . .	5.00	1.000
URUGUAY	Gold . . .	Peso . . .	5.17	1.034
VENEZUELA	Gold . . .	Bolívar . .	0.97	0.193

¹ Money of account recommended by the Inter-American High Commission at a meeting held in Buenos Aires, April 12, 1916. Equivalent to 0.33437 gram of gold .900 fine.

² Value fluctuates according to the commercial value of silver. Value given as of July 1, 1922.

³ The theoretical standard of Paraguay is the silver peso, as in Guatemala, but actually the standard is the Argentine gold peso as above given.

WEIGHTS AND MEASURES

Metric measures most commonly appearing in market and statistical reports of Latin-American countries with equivalents in units of United States customary measures.

LENGTH.		SURFACE MEASURE.	
Centimeter	0.39 inch	Square meter	10.26 sq. feet
Meter	3.28 feet	Hectare	2.47 acres
Kilometer	0.62 mile	Square kilometer	2.63 sq. mile
LIQUID MEASURE.		DRY MEASURE.	
Liter	1.06 quarts	Liter	0.91 quart
Hectoliter	26.42 gallons	Hectoliter	2.84 bushels
WEIGHT—AVOIRDUPOIS.		WEIGHT—TROY.	
Gram	15.42 grains	Gram	15.42 grains
Kilogram	2.2 pounds	Kilogram	32.15 ounces
Quintal	220.46 pounds	Kilogram	2.68 pounds
Ton	2204.6 pounds		

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Pan American Union
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